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THE

MEDICAL GUIDE,

&c. &c. &c.

LONDON:
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S 170 S.H. 1828.

THE

MEDICAL GUIDE,

FOR THE USE OF

THE CLERGY, HEADS OF FAMILIES, AND SEMINARIES, AND JUNIOR PRACTITIONERS IN MEDICINE.

COMPRISING A COMPLETE

Modern Dispensatory,

AND

A PRACTICAL TREATISE

ON

THE DISTINGUISHING SYMPTOMS, CAUSES, PREVENTION, CURE, AND PALLIATION

OF

THE DISEASES INCIDENT TO THE HUMAN FRAME;

WITH

THE LATEST DISCOVERIES

IN THE DIFFERENT DEPARTMENTS OF THE HEALING ART.

By RICHARD REECE, M.D.

FELLOW OF THE ROYAL COLLEGE OF SURGEONS OF LONDON;
CORRESPONDING MEMBER OF THE SOCIETIES OF PRACTICAL MEDICINE IN PARIS AND VIENNA;
AUTHOR OF A TREATISE ON THE MEANS OF REGULATING THE STOMACH AND BOWELS IN THE VARIETIES OF CONSTITUTIONS, HABITS, &c.
EDITOR OF THE MONTHLY GAZETTE OF HEALTH, &c. &c.

FIFTEENTH EDITION, WITH CONSIDERABLE ADDITIONS.

The Lord hath created medicines out of the earth; and he that is wise will not abhor them. With such doth he heal [men], *and taketh away their pains.* *Ecclus.* xxxviii. 4. 7.

LONDON:

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1828.

480.

TO

THE RIGHT HONOURABLE

THE EARL OF DUDLEY,

SECRETARY OF STATE FOR FOREIGN AFFAIRS,

&c. &c. &c.

My Lord,

The first impressions of this work were inscribed, by permission, to the late very learned and scientific Dr. Richard Watson, Lord Bishop of Llandaff, to whose recommendation I acknowledge, with pride and gratitude, I am indebted for the high and extensive patronage with which it continues to be honoured. In looking around for a patron to this new and I flatter myself much improved edition of the Medical Guide, I have not been able to discover a character more nearly approximating to that of the late eminent Prelate, as a friend to science, humanity, rational liberty, and the diffusion of useful knowledge, than the Earl of Dudley. With such a conviction on my mind, your Lordship will excuse the liberty I am taking in prefixing your influential name to this

work, particularly when your Lordship considers that its object is the prevention, cure, or alleviation of the diseases incidental to human nature.

That a life of such vital importance to the country as that of your Lordship may long be spared, to strengthen her councils, promote her prosperity, protect her liberties, and uphold her political and scientific pre-eminence, is the sincere wish of,

My Lord,

Your Lordship's most obedient,

And very humble servant,

RICHARD REECE.

Bolton Row,
Jan. 4, 1828.

PREFACE

TO

THE FIFTEENTH EDITION.

In regard to the utility of works on domestic medicine, directly to the public or indirectly to the medical profession, men of great learning, and who have had extensive opportunities for observation, have entertained opposite opinions. Some physicians even of the present day censure all attempts to enlighten the public on any branch of medicine, and contend, that all works published with this view, act injuriously by inducing invalids to "quack themselves," till their complaints become serious, or arrive to an irremediable state, whilst others of great learning and extensive experience speak as warmly in favour of such works. The late Dr. Percival of Manchester, Dr. Lettsom of London, Dr. Cheston of Gloucester, Sir Walter Farquhar, Sir Christopher Pegge of Oxford, Sir Busick Harwood of Cambridge, were, like the immortal Hippocrates, advocates for a diffusion of medical knowledge among the bulk of mankind, and for this purpose they were in the habit of recommending the Medical Guide to their friends.

Dr. Kinglake, in an article on this subject, observes, "domestic or popular medicine, judiciously handled, so as to familiarise the public understanding with disease, and the probable means of cure, is of inestimable worth. It supplies the information that is wanting to enable patients to contemplate with useful correctness the

THE

MEDICAL GUIDE,

&c. &c. &c.

but in the present period, the person who recommends a new medicine as a remedy is sure to meet with abuse, and misrepresentation of his views and practice, and that, too, from the mere supposition that he may obtain a degree of popularity that may diminish the fee trade.

I have, for about twenty-five years, devoted much time to publications, as my Monthly Gazette of Health, and the late editions of this work evince, for the purpose of diffusing a knowledge of medicine among the bulk of mankind, not entirely with the view of inducing invalids to undertake the management of their own cases, but for the purpose of enabling the public to distinguish the man of merit from the pretender.

By enabling invalids to distinguish the man of sound judgment and practical knowledge from the pretender, domestic medicine is unquestionably of great advantage to men of science and experience. One of the most scientific physicians of London lately observed to me, that he always found that he gave most satisfaction to those patients to whom he could explain his reasons for employing certain medicines, &c. and that such patients always cheerfully resigned themselves to his guidance. If medicine were brought to that degree of perfection that all properly-educated practitioners agreed on the treatment of disease, and would give themselves time to obtain a clear insight into the nature, causes, ramifications of their maladies, and also the peculiarities of constitution, habits of life, and the states of the secretions, nervous and vascular systems, &c. &c. no rational patient would have recourse to domestic medicine, and the nostrum trade would soon die a natural death.

Such is the inconsistency of the editors of some periodical medical journals, that although they condemn *popular systems* of domestic medicine, they speak in

terms of commendation of works which are clearly written for the perusal of the public; and which are, in fact, chiefly, if not entirely, purchased by people who are not of the medical profession.

In composing the first edition, and enlarging the four subsequent editions, I availed myself of the works of Cullen, Sydenham, Heberden, William and John Hunter, Duncan senior and junior, Hamilton, Cheston, Johnstone (of Worcester), Farr, Haller, Lambe, Clarke, Denman, Cadogan, Willich, Sinclair, Woodville, Baillie, Cam, Blount, and Willan, and in those editions I gave to each writer the merit of the opinions and practice I selected. In the late editions I have so corrected their doctrines, and altered their modes of treating numerous diseases, from the results of my own practice, that I have thought proper to make this general acknowledgment instead of making frequent references to the different works. In the present edition I have introduced the discoveries made by the most eminent practitioners on the Continent, and in America, as well as those by British practitioners, which I have ascertained to be entitled to the attention of the public, or of the medical practitioners of this country.

INTRODUCTION.

INDEPENDENT of the numerous additions of modern discoveries, and prescriptions of approved efficacy, and the cautionary remarks which pervade the second part of this work, relative to the treatment of various diseases, I have in this edition endeavoured to place what is termed *domestic medicine* on a scientific or rational foundation; which attempt will, I flatter myself, enable every person of common sense to combat the diseases of ordinary occurrence with success, and, what is of no less importance, to ascertain how far their medical attendants are entitled to their implicit confidence. In the first part (from p. 2 to 52), I have defined the different classes of remedies, and explained their direct and indirect operations in a variety of diseases. This part affords a sound basis for the medical treatment of the maladies to which Europeans are liable, and with which every person who wishes to attack disease successfully or satisfactorily to himself, should be well acquainted. Under the head of treatment of diseases, in the introduction to the *second part*, I have endeavoured to form a basis for the management of diseases, by pointing out the necessity of taking into consideration not only the age, constitution, habits, and customs of the patient, but the stage of the malady. To this part of the work (p. 233), questions to patients (from p. 257 to 266), the influence of the passions of the mind in inducing and in aggravating various diseases (from p. 236 to 242), the different temperaments or constitution of patients (from p. 242 to 248), to sympathies (from p. 248 to 252),

customs and habits (from p. 252 to 257), and to the distinction between disease and disorder (p. 268), I particularly direct the attention of my readers. The preliminary remarks which I have there made, and the explanation of the operation of the remedial agents (from p. 2 to 52), form the basis not only of *domestic* but of *regular* medicine, and fortunate would it be for the public if every medical practitioner were to conduct his practice on so solid a foundation.

I also particularly advise my readers who are anxious to act the part of the good Samaritan among their afflicted neighbours with effect, to bear in mind that all diseases are more or less modified by age, constitution, and habits; and that some are so far influenced by either as to require opposite modes of treatment. Age, without taking into consideration the constitution or habits of the patient, is not always a guide as to the treatment of any malady; for some persons at the age of twenty-five, from original conformation, or from habits, have the stamina of one of sixty or seventy, and *vice versâ*. The state of constitution and the habits of the patient should, therefore, be always connected with the age. The stage of the disease must likewise be taken into consideration; for a malady in the last stage, when the vital powers have given way to its influence, often requires an opposite treatment to that which would have been applicable to the first stage. Nearly all the diseases that assail the human frame, in fact, requiring no other treatment than that which the state of the stomach, intestines, and of the nervous and sanguiferous systems indicate, the attention of the judicious practitioner is directed to the constitution, &c. of the patient, so as to produce and maintain a state in which the disease cannot produce any local or general mischief, or is likely to run its course with impunity. The remarks on sympathies (from p. 248 to 252) I particularly recommend to the serious perusal of my medical and non-medical readers. They should bear in mind that a sympathetic affection is not always to be cured by attacking or subduing the

primary malady; and when the former takes place in a part of vital importance in the animal economy, it often becomes more formidable than the primary disease, and in proportion as it advances, the latter decreases. In affections of the lungs it frequently happens, that the stomach, which was primarily disordered, becomes healthy, and properly performs its office, when that of the lungs is advanced to an incurable stage. The sympathetic affection, as a celebrated physiologist observes, instead of being an assistant, frequently sets up for itself, and if the practitioner continue to direct his remedies to the primary affection, he will accelerate the fatal termination of it. From inattention to the temperament, habits, and age of a patient, and to the stage of the malady, many valuable remedies have fallen into disuse, and many which have proved beneficial in an advanced stage of a malady have been prescribed, to the great injury of the patient, in the first stage.

In cases of local diseases I have pointed out the necessity of attending to the general health, particularly to the stomach, intestines, and the nervous and sanguiferous systems, so as to destroy or subdue the sympathetic connection it may have formed with the stomach, or any other part of the body, in order to ensure the success of topical applications; and I may here observe, that unless the malady be rendered completely local, or its sympathetic connections entirely destroyed, the most judicious local management or treatment will prove unavailing; and, again, in the treatment of the diseases for which there are *specific* remedies, I have pointed out the necessity of preparing the system by placing the stomach and intestines in a proper state for their exhibition. The effects of those remedies are no doubt, frequently counteracted by a disordered stomach, intestines, or nervous system.

It was my intention to have introduced into the second part of this edition of the Medical Guide, the substance of my late work on the means of regulating the stomach and bowels in various temperaments and conditions of

the intestines, liver, &c. &c., * by medicine, diet, exercise, &c.; but the numerous additions I had made to the first part would not admit of it, in consequence of being confined to a certain number of pages. I have, however, given what may be termed the essence of the work, and I have only referred to those chapters which would not admit of being condensed. For the causes, treatment, &c. of the diseases which I could not with propriety introduce into a work of this kind, I have referred my readers to my late treatise on the medicinal properties of the Buchu Leaves; and for the complaints peculiar to the female sex, to the supplement to the thirty-third Number of the Gazette of Health. †

The Medical Guide, in its present improved state, will, I flatter myself, be found to contain more *practical* information than any other system of medicine which has been published in this country. It has been nearly rewritten, and the whole is the result of close study and observation, during an extensive private and hospital practice for a period of thirty-five years.

The first edition of this work met with the particular approbation of the late venerable and learned Dr. Richard Watson, Lord Bishop of Llandaff, and Sir Christopher Pegge of Oxford, since which it has gone through fourteen editions. It is recommended by the most eminent physicians of this country; and has been translated into all the languages of Europe by medical professors of the most celebrated universities, and reprinted in America; and at this time is in greater demand in the United Kingdom than any other medical

* A Practical Treatise on the means of regulating the stomach and bowels, by medicine, diet, exercise, &c. &c., in cases of habitual and other varieties of constipation; of simply irritative and structural affections of the lungs, stomach, liver, rectum, &c.; of ruptures, introsusception, colic, &c. during pregnancy; of correcting the gouty, rheumatic, nervous, scrofulous, erysipelatous, leucophlegmatic, or verminous and melancholic temperament, and of fortifying the system against the climacteric disease, or breaking up of the constitution, second edition.

† This work may be obtained at the Medical Hall, 170, Piccadilly.

publication; a circumstance which I notice with gratitude and pride.

My principal intention being to enable the charitable and humane to administer comfort and relief to the objects which poverty and disease recommend to their compassion, I beg to state, that it will at all times afford me great pleasure to give any further information or explanation in my power to assist them in the discharge of that "work of labour and love" which is one of the most delightful and important duties of CHRISTIANITY. The poor are my best patients, frequently observed that good and able physician, Boerhaave, because GOD is their paymaster. For the purpose of promoting the object of this work, I instituted nearly twelve years since a monthly publication under the title of the Gazette of Health, or Medical dietetic anti-empirical and general philosophical Journal, at the low price of one shilling. This work, a number of which is published on the first of every month, contains all the new discoveries made in different parts of the known world in either of the departments of medicine that are likely in any respect to prove beneficial to the public. The composition of advertised remedies or nostrums is given, and the dishonest practice of regular and irregular quacks, and other pretenders, fully exposed. The substance of all new works on medicine, diet, and domestic economy is also given, so as to enable the reader to form an opinion of their merits. This periodical work has experienced a most extensive circulation, and is at this time supported by the most eminent physicians and chemists in Europe and America. The back numbers have been several times reprinted for new subscribers. The object of the Editors of the Monthly Gazette of Health being to give the earliest intelligence of any new discovery that is likely to prove beneficial to the public, either in preventing or curing disease, or in promoting domestic comfort or economy, the Proprietors are not desirous to derive any profit from the back numbers. New subscribers may, therefore,

obtain the volumes that have been published (twelve, lately reprinted) at the original cost, viz. that of paper and printing, at the Medical Hall, 170, Piccadilly. * These volumes (with copious indices) not only form a complete modern medical library, but contain the opinions of the most eminent practitioners relative to diet, discoveries in agriculture, the composition of some hundreds of quack medicines, the substance of all the new medical dietetic or philosophical works, original communications, &c. &c.

PULMONARY CONSUMPTION.

Since the second part of this work was printed, the infusion of an ash-coloured ground lichen (not the Lichen Islandicus), has been highly extolled as a remedy for pulmonary consumption by Dr. Hereford, a respectable physician of Boston in North America, who has published some cases of general emaciation, attended with symptoms of diseased lungs, in which it proved successful. This infusion is made by steeping two ounces of the lichen in a pint and a half of boiling water for six or eight hours. Doctor Hereford recommends a wine-glassful to be taken four or five times a day.

RINGWORM, &c.

Castor oil has also been highly extolled as an infallible topical remedy for ringworm. It is directed to be rubbed over the part affected every night and morning. The citrine ointment made with castor oil, in lieu of olive oil, has been found to succeed in cases of scald head, leprous affections, and chilblains, which had resisted the usual remedies. An account of these remedies, with directions for their use, is given in the 145th number of the Gazette of Health, published on the 1st of January 1828.

* The cost price is about sixpence a number, or six shillings a volume—at this price they can only be procured at the Medical Hall, 170, Piccadilly.

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PART I.

THE MODERN

DOMESTIC DISPENSATORY.

For this very important department of practical medicine, I have made choice of those articles which are employed by the most experienced and scientific physicians of the day, in the cure, palliation, and prevention of the diseases incident to the human frame, and which, from their great utility, the leading family of a parish that does not afford immediate medical aid should be furnished. The advantages of such a provision from a respectable source, are too obvious to render an enumeration necessary. It not only affords the means of exhibiting the appropriate remedy or antidote in cases of emergency, as fits and other sudden attacks of diseases and occurrences, as poisoning, suffocation, scalds, burns, &c. &c., in which the relief should be speedy to be effectual, but enables a person to exercise the charity most delightful to the benevolent heart and acceptable to the afflicted, of mitigating the corporeal sufferings of his indigent neighbours, and of restoring the bloom of health to the wan and faded cheeks of poverty and disease. The tribute of applause is never more justly due, nor more honourably conferred, than when it is bestowed on those who employ their fortunes and talents in lessening the sum of human misery; who, Christian-like, sit by the side of affliction, promoting the recovery of health, and diminishing the anguish of disease. Many classifications of remedies have been published, chiefly by lecturers on the *materia medica*, for the use of their pupils, with the view of rendering the study less laborious. Some have adopted, as a basis of their arrangements, their medicinal properties, others the kingdoms of nature of which they are products, and others their chemical qualities. Such classifications may, to a partially educated physician, appear scientific, but to practitioners acquainted with all the department of medicine, and who have had opportunities of

witnessing the effects of the various remedial agents, they afford no guide whatever in the treatment of disease, and to the non-medical man must prove perplexing. In the most simple classification of remedies, viz. according to their medicinal virtues, the student is not a little embarrassed on finding the same article classed as denoting properties diametrically opposite; for instance, opium, black pepper, cayenne pepper, foxglove, turpentine, &c. both as *stimulants* and *sedatives* or *antistimulants*, or *irritants* and *inirritants*. The first action of opium is represented by all as stimulating, and the sedative effect is considered a consequence of it. Cayenne and black pepper, applied to the surface of the body, are powerful stimulants, speedily occasioning inflammation, but when applied to an inflamed palate it has a contrary effect. Turpentine, although it powerfully stimulates the skin, proves a sedative or antistimulant in cases of puerperal fever, and has a very soothing effect in some cases of inflammatory excitement of the kidneys, bladder, and urethra. The foxglove diminishes the action of the heart and arteries, and increases that of the absorbent system. Some articles again appear in almost every class; the squill root is noticed under the heads of stimulant, diuretic, expectorant, emetic, cathartic, &c. Calomel appears as a stimulus, a sedative, a cathartic, an alterative, deobstruent, vermifuge, discutient, diaphoretic, antispasmodic, antibilious, &c. Hence it will appear obvious, that no classification can be made of medicinal agents according to their properties, of any practical utility either to the medical or non-medical man; and the same may be said of the other classifications, however judicious or scientific they may appear to the naturalist, the chemist, or the physiologist. In giving a definition of the different terms used in medicine expressive of the properties of the various remedial agents, I shall take them in their alphabetical order; and to render this part interesting and instructive to every class of readers, I shall under each head notice the manner or *modus operandi* of the remedies in the cure of various diseases, to which I advise those who may be desirous to exercise their talents successfully in mitigating or curing the diseases of their poor neighbours or of themselves or domestics, to pay particular attention, being a very important part of popular medicine, and which is now, for the first time, introduced into it. The person with such knowledge will assuredly proceed more satisfactorily to himself, and I may say, more scientifically and successfully than one third of the medical practitioners of this country. At any rate, such knowledge will enable a person to ascertain the qualifications of a practitioner, whether physician, surgeon, or apothecary, to practise physic or surgery, or whether, in case of being afflicted with disease, he is entitled to his implicit confidence. I have employed the old

names, because they are better known to the public than the new ones. I have, however, given the latter for my medical readers.

ALTERATIVES or ALTERANTS. — An article is termed alterative which is capable of improving the general health of the body, without producing any very obvious sensible effect, either by increasing the fæcal evacuation or perspiration, or of correcting any vitiated state of the humours or morbid action. When it was fashionable to attribute almost all the diseases to which man is liable to some corrupted state of the juices, as it is at this time to a vitiated state of the bile, or some morbid condition of the liver, the class of alteratives was very numerous; and although the doctrine has long given way to more fanciful theories, it is common for physicians to order decoction of sarsaparilla and other demulcents, inspissants, and attenuants, as *alteratives*. Since the theory of acrimony and viscidity of the blood as causes of diseases has lost the charm of novelty, the class of alteratives is become very limited. According to the present fashion in medicine, those agents are termed alteratives that correct the supposed acrimony which occasions eruptions of the skin, formerly termed the *scorbutic acrimony*, which consists chiefly of preparations of mercury and antimony. Some attribute the effect of the grand alterative — mercury, in cases of cutaneous eruptions and other complaints, to its increasing the insensible secretion of the skin; others to its correcting some disordered condition of the liver, or vitiated quality of its secretion — the bile; with some theoretical writers a prolific source of various diseases. Others attribute its beneficial or alterative effects to its improving the state of the digestive organs, the consequence of which is the blood being supplied with proper chyle, all the secretions become more healthy, and the disordered organs or local diseases, quiescent; and from this source the salutary effects of mercury no doubt arise; but when the topical application of it evidently corrects the ichorous discharge of an ill-conditioned ulcer and produces healthy pus and granulations, even when the digestive organs are disordered; and when its topical application will heal a syphilitic ulcer, and when mixed with the syphilitic poison render it inert, we must attribute such effects to some peculiar chemical action. Whoever considers the processes of deposition of new matter from the blood, and absorption of old matter that are constantly going on in every part of the living body, and that the old particles and even diseased matter are conveyed to the mass of blood by means of the absorbent system, must admit that when the organs, whose office is to separate the matter so conveyed to the blood, do not properly perform their duty, the humours of the body must become more or less impure

or acrimonious. Mercury, therefore, by increasing the *functional* actions of the depurators of the blood, viz. the liver, the lungs, kidneys, skin, and the fæcal glands of the colon, acts indirectly as an alterative; and it may be a question whether the effects of mercury in syphilis may not be attributed to its operation on those organs, so as to clear the blood of the poison, and convey it from the body with other impurities.

The vegetable alteratives employed by the physicians of France, (where the doctrines of acrimonious or vitiated humours, or the humoral pathology, still prevail,) and by some of the physicians of the old school in this country, under the names of tisanne, or diet drinks, to clear the blood from impurities, or to correct acrimony, are numerous. Sarsaparilla, in forms of decoction, powder, extract, and syrup, is still a favourite alterative with some English surgeons and physicians. Such articles, probably, act beneficially merely as diluters of the contents of the stomach and of the blood, &c. When a person takes, at one time, a pint of tepid water, or of a decoction of a simple article, as that of sarsaparilla, grass, hay, &c., it seems in the course of one or two hours to be conveyed from the stomach to the bladder; but the urine, so rapidly collected, is secreted from the blood, and will be found to contain saline articles, and the water having, in the first instance, been conveyed to the mass of blood, must necessarily dilute the serum, and render it less acrimonious or stimulating. Hence, water itself is a powerful alterative, and to it may be attributed the good effect of the diet drinks of the French practitioners, and of the decoction of sarsaparilla, which contain only a little mucilage. By the addition of mucilage, the alterative effects of water are, no doubt, increased in cases of inflammation of the kidneys, bladder, urethra, or of the membrane lining the windpipe; and as the marshmallow root yields more to water than the sarsaparilla root, I have latterly given the decoction of it a preference to that of sarsaparilla. Cheese-whey and butter-milk are also good diluting alteratives. The balsams, as Tolu, copaiba, &c., are also alteratives in numerous cases. *See* BALSAMICS.

The native saline waters of Cheltenham, Leamington, and other places, and small doses of the Epsom salt, Glauber's salt, Rochelle salt, &c., are considered by some practitioners very efficacious alteratives; and by emptying the bowels, and increasing the secretion of urine, they sometimes prove beneficial in cutaneous affections of young subjects. They, however, often prove very injurious, particularly in elderly subjects, by diminishing the circulation in the viscera of the abdomen, and thereby occasion an increased afflux of blood to the head. They also weaken elderly people by keeping up an unsatisfactory flu-

tulent purging, and aggravate inflammatory excitement in the bladder or prostate gland, by increasing the saline particles of the blood. *See* CATHARTICS. The native saline aperient waters, as well as iodine and burnt sponge, have been found efficacious alteratives in scrofulous affections of young subjects, in consequence, as some theorists assert, of increasing the saline articles in the blood, to a deficiency of which they attribute an excess of gluten, which occasions a stagnation of fluids in the glandular system; but it has been observed, that the Malvern water, which is nearly, if not entirely free from saline particles, proves more beneficial in scrofula than the saline waters. Other articles have been denominated alteratives, but if every medicine that produces a favourable alteration in a secretion, or corrects the state of the blood, either immediately or remotely, *i. e.* by correcting the state of the digestive organs, so as to supply the blood with healthy chyle, by stimulating the organs which separate the impurities from the blood, by diluting the blood, or by any peculiar chemical effect on the fluids, were to be termed an alterative, the class would embrace all the articles of the materia medica. Dr. Paris observes, that "it must be admitted, as an axiom, whenever an alterative medicine acts with violence upon the stomach and duodenum, its *energies* are uselessly expended, and the object of its exhibition is frustrated." When mercury acts on the intestinal canal, a less quantity, of course, enters the system; but the purging which occurs on its commencement, which often takes place in consequence of meeting with acid matter in the stomach, or of a foul condition of the alimentary canal, afterwards favours its absorption, and consequently its alterative effects, by removing slime from the internal surface of the intestines, and obstruction of the mesenteric glands. When the decoction of sarsaparilla or of marshmallow root, or any other tisanne or diet drink, in large doses, relaxes the stomach, and in consequence of not being readily assimilated, occasions a sense of oppression, and other symptoms of indigestion, (common effects in elderly or weakly subjects,) they increase, instead of diminish, the impurity of the blood, and produce general relaxation. *See* ANTACIDS, p. 6; ANTALKALINES, p. 7; BALSAMICS, p. 17; PREPARED SODA, IODINE, LIME WATER, SCROFULA, ERYSIPELATOUS TEMPERAMENT, &c.

ANODYNES.—The articles which are capable of allaying or diminishing pain or producing sleep, either primarily or secondarily, are thus termed. Three kinds are noticed, *viz. Peregorics*, which assuage pain; *Hypnotics*, such as relieve by procuring sleep; and *Narcotics*, those which afford ease by occasioning stupifaction. The different anodynes, a most important class of medicines, I shall particularly notice under the head of SEDATIVES.

ANTACIDS.—The articles which neutralize an acid are thus termed. Those chiefly employed to neutralize predominating acid in the stomach, are magnesia and its subcarbonate, subcarbonate of soda (*see* PREPARED SODA), subcarbonate of potass (*see* SALT OF WORMWOOD), lime (*see* LIME WATER), and carbonate of lime (*see* COMPOUND CRETACEOUS POWDER). These articles, on uniting with the acid in the stomach, form a *neutral salt*, *i. e.* a salt which is neither alkaline nor acid, and which produces (except with the lime and carbonate of lime) an aperient effect. The carbonate of soda, or of potass, or of magnesia, although neutral salts, neutralize the acid in the stomach, which occasions heartburn, in consequence of the alkaline base having a greater attraction for it than for carbonic acid gas; the consequence of which is, it unites with the acid, and the carbonic acid is disengaged in a state of gas.

It has been said, that an alkali or antacid is of no essential use in cases of indigestion attended with heartburn, because the acid which produces the painful sensation is only a *symptom*, or a *consequence* of some disordered state of the stomach; but as the acid evidently tends not only to keep up the disorder of the stomach, and even to counteract the effects of remedies that are applicable to the primary affection, it is an important, and indeed a necessary auxiliary to a stomachic medicine. Diseases may be considered as combinations of symptoms, and the judicious practitioners in prescribing remedies are guided by them, having always in view the primary disease. Indeed a symptomatic affection of a part of much importance in the animal economy, often becomes the principal object of treatment. When heartburn or spasms in the stomach, from the prevalence of an acid, is attended with diarrhœa, often the case in infants, the best antacid is the prepared chalk; but when accompanied with costiveness, the carbonate or subcarbonate of magnesia should be preferred.—(*See* MAGNESIA.) When irritation or fever exists, and the bowels are not confined, and are very susceptible of the action of an aperient, the *carbonate* of soda is the best remedy, on account of the carbonic gas which escapes on mixing with the acid, allaying irritation in the mucous membrane of the stomach, and thereby quieting the whole system. The process which takes places in the contents of the stomach, of which the production of an acid (often a very potent one) is the consequence, is generally, if not always, occasioned by a feverish condition or increased nervous excitement, or temperature of the organ, and never takes place in cases of indigestion from debility or relaxation of the stomach, which occurs in elderly subjects or worn out debauchees, or leucophlegmatic habits. In such cases, whatever allays the irritation or feverish temperature of the

stomach will act as a preventive of acidity, and in this case the dilute sulphuric acid, or the tartaric or citric acid, will prove indirectly antacids. In gouty subjects the secretion of the stomach is a peculiar animal acid, which some physicians say they have ascertained to be the lactic, others the phosphoric, and others a combination of the lactic, the phosphoric, and the muriatic. In such cases, *i. e.* arising from morbid excitement, the best antacid is the carbonate of soda, on account of the carbonic acid which is disengaged diminishing, if not subduing, the cause. The antacids are also very useful when an acid predominates in the urine. When this is the case (evident by red deposit) Mr. Brande recommends magnesia to be taken, and when the bowels are confined this is the best remedy; but when they are in a regular state the carbonate or subcarbonate of soda will answer. It has been said, that when an acid predominates in the urine it is the consequence of a disordered state of the kidneys, and not of an acid prevailing in the stomach, because the acid in the urine is very different to that which exists in the stomach, and because the kidneys have the power, when disordered, of forming different acids from the blood; and a chemical physician has lately observed, that when the kidneys are stimulated by the electric fluid, the urine becomes impregnated with nitrate of potass (saltpetre), although the article is not introduced into the stomach, or exists in the blood. That the secreting glands have the power of forming combinations or simples which do not exist in the blood, and which were not conveyed into the stomach with the food, or through the medium either of the lungs or skin, is allowed by physiologists; but of this I am certain, that by the use of an antacid taken into the stomach, the urine which was acid may be rendered alkalescent, *i. e.* instead of an acid an alkali will prevail. An antacid taken into the stomach has therefore a chemical effect on the fluids of the body, and in cases of inflammatory affections of the membrane lining the windpipe, and of the urethra, has often a very soothing effect, no doubt in consequence of some chemical corrective action.

ANTALKALINES. — As alkalies neutralize acids, so do acids neutralize alkalies; the former are therefore termed *antacids*, and the latter *antalkalies*, by the union of which *neutral* salts are formed. When either sulphuric acid, or pure potass, or pure soda is applied to the skin, it acts powerfully as a caustic, and when introduced into an empty stomach, has speedily produced so much mischief as to destroy life in a few hours; but when these powerful caustics are combined, they form a mild neutral salt, and hence, when sulphuric acid is taken into the stomach in excess, the chemical antidote is the caustic alkali, as pure

potass, pure soda, or lime; and when a caustic alkali is swallowed in excess, the chemical remedy is the dilute sulphuric or the lemon acid, but all acids are not rendered inert by being neutralized, for the poisonous quality of the prussic or of the oxalic acids, is not even diminished by union with potass, soda, or any other alkali, the poisonous property of these acids not depending on their caustic quality, but on a peculiar chemical power. The poisonous quality of some of the alkalies that have been lately discovered in vegetables is increased by an acid, as morphine, strychnine, &c. Professor Cullen, in his Lectures on the Materia Medica, has given a chapter on *antalkalines*, because Boerhaave was of opinion that some disorders of the system arise from an alkaline state of the blood; the Professor, however, states that he is convinced the blood is never alkalescent, and that the opinion of Boerhaave is erroneous. A Dr. D'Ursin, a French physician, in a late publication on the Causes of the Varieties of Gout, asserts that *regular* gout is occasioned by predominating acid in the blood, and consequently that the remedy is an antacid, and that atonic gout is produced by predominating alkali, and therefore an antalkaline is the proper remedy; but as the existence of an uncombined alcali has not been detected in the blood, or any of the humours by able chemists who have analyzed them, this opinion is clearly erroneous. The late Mr. Parkinson, in a publication on gout, attributes the disease to the prevalence of an acid, and his specific remedy was soda, which, he says, effects a cure by neutralizing the supposed cause. An excess of an acid in the stomach, no doubt, aggravates gout as well as other diseases, by keeping up irritation in this important organ; but it is clear the condition of the stomach, of which the acid is a consequence, is dependant on the same cause as gouty irritation or paroxysm. There is no disease nor disorder, local or general, in the human body that either arises from or is aggravated by the predominance of an uncombined alcaline, so as to render the use of an antalkaline necessary. The urine contains an excess of acid for the purpose of keeping the salines it naturally contains in a state of solution, and when this principle is deficient, a deposit of *white gravel* takes place, and, in such case, the remedy is clearly an acid. Dr. Wollaston and Mr. Brande, who have noticed this fact, recommend either the antalkalines (tartaric acid or the lemon acid) to be taken freely, and either answers the purpose of preventing such deposits. Some physicians attribute this effect of antalkalines to a tonic effect on the stomach, or in promoting digestion; but as the complaint often continues after the stomach is strengthened, and the symptoms of indigestion removed by the Peruvian or the Cascarilla bark, without any acid, it is fair to attribute their operation to their increasing the quantity of acid

in the urine. The white gravel is often produced by the free use of calcined magnesia, soda water, or alkaline preparations, and physicians ignorant of chemistry often commit serious mistakes by considering the white gravel passed during the use of an alkali, a proof that it is acting beneficially by decomposing large gravel, or a stone in the bladder, or in the pelvis of a kidney, and have, in consequence, persisted in a remedy which has rapidly increased the size of the calculus. Dr. Paris has broached a piece of chemical theory that has a tendency to upset the opinion of Mr. Brande and Dr. Wollaston, respecting the increase of acidity in the urine by the use of a *vegetable* acid taken into the stomach. On noticing the properties of the supertartrate of potass, he observes, the tartaric acid is separated from the potass in the stomach, and that the former is assimilated by the digestive process, and travels out of the body with the fæces, but the alkali (the potass) is conveyed through the medium of the circulation to the kidneys, and increases their action. This, he says, is the case with all neutral salts, formed by the common vegetable acids, whilst those formed with a *mineral* acid are not decomposed, because the mineral acids are not assimilated by the digestive process. The fact is, the neutral salts formed by a vegetable acid, as the tartaric, the lemon, the acetic, and an alkali, either magnesia, soda, or potass, do not act so powerfully on the intestinal canal as those formed with a mineral acid, and, in consequence of entering the blood in greater quantity, act more powerfully on the kidneys. If the vegetable acid be separated from the alkali and become assimilated, the alkali which enters the blood would have the same effect as a free alkali taken into the stomach, *i. e.* of diminishing the acid of the urine; but so far from this being the effect, the supertartrate of potass renders the urine more acid. The acid of tartar is, in fact, a diuretic, and never fails to render the urine more acid, a proof that it is not assimilated in the stomach; again, both the soda and potass are rendered more diuretic when neutralized by the acetic acid. Some years ago, under the supposition that the bile in cholera morbus is rendered acrimonious by an excess of caustic alkalies, an antalkaline, as the lemon or tartaric acid, was recommended to neutralize it, but the remedy having increased the irritation and spasms, it has fallen into disuse.

ANTHELMINTICS or VERMIFUGES. — Medicines which cause the expulsion of worms from the stomach and intestines are thus named. The anthelmintics generally employed in regular practice may be divided into three kinds, according to their mode of acting: — 1st. Those which act mechanically, as the filings or granulations of tin, filings of iron, and cowhage. Whether these articles act on the worms themselves, or on the

internal coat of the alimentary canal, so as by irritation to occasion it to throw off slime which affords a lodgement for them, or otherwise detach them, is doubtful. They probably act in both ways. The iron filings very likely act both mechanically and chemically; a solution of it, which is formed in the stomach, as evident by the black appearance of the alvine evacuations, being a powerful poison to this species of animal. The second order acts chemically on the worms, as the rectified oil of turpentine, bark of the pomegranate root, preparations of mercury, Indian pink, the worm-seed, tansy, and the essential oil and extract of wormwood, &c. These operate most powerfully when combined with a purgative, or when a cathartic is administered a few hours after a dose. The best cathartic to accompany the turpentine is the croton oil, and the other medicines the compound powder of scammony.—(*See* BASILIC POWDER.) The third kind are those which dislodge them by detaching slime which connects them to the intestines, and rapidly carrying off the contents of the canal, as scammony, gamboge, and croton oil. This class succeeds best when combined with an article that acts chemically on them, particularly calomel, as the composition noticed under the head of *Basilic Powder*. For the expulsion or destruction of ascarides, which are chiefly lodged in the slime of the rectum, a strong infusion of wormseeds, of Indian pink root, or the leaves of wormwood or tansy in lime-water, administered clysterwise once a day for four or five days, after emptying the intestinal canal by a basilic powder, generally proves very efficacious. A clyster composed of Peruvian bark powder and subcarbonate of soda in water has been lately highly extolled as a remedy for this species of worm, and in a few cases I have known it to succeed. All the tonic remedies, &c., particularly intense bitters, have been extolled as vermifuges, which act by removing the cause, as indigestion and relaxation of the intestinal tube, and should therefore accompany the use of a direct vermifuge.

ANTIBILIOUS MEDICINES.—Since it has been the fashion to attribute nearly all complaints of the head, stomach, and intestines, either to deficiency or an excess of bile, or some morbid condition of it, antibilious remedies have been in much demand. Three kinds are chiefly in use, *viz.* those which correct and increase it, as mercury, particularly the preparations of it termed blue pill and calomel, to which the alkaline tincture of fumitory is a very valuable auxiliary. Those which carry off redundancy as an active purgative, as the compound colocynth pill, the alkaline extract of jalap, or the antibilious aperient pills, which not only empty the alimentary canal, but also purge the liver; and the third, those which some chemical physicians suppose decompose the bile or correct its acrimony, as the dilute sulphuric acid

with a bitter tincture, as that of calumbo or cascarilla, or infusion of calumbo or camomile flowers.—(*See* PREPARED CALOMEL, DILUTE SULPHURIC ACID, and BILIOUS COMPLAINTS.)

ANTIDOTES, ALEXIPHARMICS, or ALEXITERIALS, or COUNTER-POISONS.—A class of medicines supposed to be capable of securing the body against the effects of poisons, or to correct or expel those which enter the system. The ancients, who had a long list of alexiterial, or alexipharmic compound waters, spirits, or confections, supposed that they commuted the poisons by some chemical action, and expelled them by increasing sensible and insensible perspiration. They are deservedly fallen into disuse. Analytical chemistry has been so successfully cultivated by the moderns, that in cases of most of the poisonous mineral salts being taken into the stomach, an agent may be administered capable of decomposing them, and thereby rendering them inert.—(*See* TREATMENT OF CASES OF POISONS SWALLOWED, and the TOXICOLOGICAL CHART.)

ANTILITHICS.—Medicines capable of preventing stone or gravel are thus termed. Where there is a red deposit from the urine, as in the case when the uric acid predominates, the best antilithic is magnesia, or the subcarbonate of soda or of potass; but when it is white, there is a deficiency of acid in the urine, in which case the best preventive is the lemon or the tartaric acid.—(*See* ANTALKALINES, MAGNESIA, PREPARED SODA, and SALT of WORMWOOD.)

ANTISEPTICS.—Such medicines which possess the power of preserving animal bodies from decomposition, or the putrefactive process, are thus denominated. The doctrines of a tendency to putrefaction existing in cases of typhus fever, the malignant sore throat, scurvy, or any other general disturbance of the system, having been long exploded, no medicine is now administered as an antiseptic. As the articles of this class do prove beneficial in typhus fever, the malignant sore throat, and sea-scurvy, and as the doctrines of putrid disposition, like the humoral pathology (more free from error, and more founded on facts than any that has since been broached), have probably been too hastily abandoned, I shall briefly notice the four orders of them.

1. *The tonic antiseptics.*—Peruvian bark, cascarilla, camomile flowers; chiefly employed when the disease occurs in an elderly subject, or in a relaxed, leucophlegmatic, or languid habit, circumstances to which particular attention should be paid. *See* PERUVIAN BARK.

2. *Cooling antiseptics.*—Dilute sulphuric acid, lemon acid, sweet spirit of nitre, adapted to young, irritable, plethoric, and feverish subjects.

3. *Stimulating antiseptics.*—Wine, brandy, compound liqueurs,

&c. These should accompany the use of the tonic order, in cases occurring in persons of very languid constitutions, or in elderly subjects, or when the vital powers are giving way to the disease.

4. *The nervous antiseptics*; as camphor, compound spirit of sulphuric ether, acetate of morphine, tincture of henbane, &c., which should accompany the use of either of the two first orders, when the nervous system is in a high state of morbid excitement, a common attendant on typhus fever.

All these articles do not prove antiseptic when introduced in the stomach, from any chemical action; but by increasing the vital energy of the system, so as to resist any putrefactive disposition that may exist in the body. The astringents, as the Peruvian bark and the sulphuric acid, may produce the effect by increasing the cohesion of the whole body; and the latter may have some chemical effect on the fluids. I have said so much, because I believe there is, in some constitutions, a disposition to putrefaction in some diseases, as sea-scurvy, typhus fever, and malignant sore throat; and if the last order cannot be termed antiseptic in such cases, the addition of it may prove, in practice, of some utility. The topical antiseptics, in cases of mortification, are, the chloruret of sodium, pyroligneous acid, charcoal powder, powdered bark, solution of myrrh, opium, the yest poultice, fomentations, &c. As a proof that no disposition to putrefaction exists, either in the fluids or solids of the living body in cases of typhus fever, sea-scurvy, or the malignant sore throat, it has been said that the bodies of those who die of these diseases keep longer than those that fall a sacrifice to any other disease; but this assertion I have ascertained from long observation to be erroneous. For the purpose of preventing putrefaction of dead bodies, the pyroligneous acid, the solution of the chloruret of sodium, and nitrate of potass or of soda, are the most powerful.

ANTISPASMODICS are such remedies which prevent or allay spasms, vulgarly termed cramp. Spasms being generally attributed to debility, stimulants are prescribed for its immediate relief, and tonics as a preventive. The phenomena of spasms are interesting, both in a physiological and pathological point of view. Cullen considered spasms to be a nervous affection. There is a principle inherent in muscles, termed excitability, which is independent of nerves. The contractile power of muscles is dependent on this principle, and as spasms are an excessive action of the muscular fibres, independent of the will, often to an extent as to pinch the nerves of the parts, and occasion very severe pain, it is more likely to be the effect of increased strength than of debility, and the robust are, therefore, as liable to it as the

weak: and the latter, although they cannot bring the voluntary muscles properly under the influence of their minds, in consequence of nervous debility, generally possess strong muscles. — Many facts may be adduced to prove that muscular power is independent of nervous influence. When the branch of the eighth pair of nerves leading to the stomach is divided, the muscles of the stomach and of the parts which sympathise with it, as the diaphragm, &c., are brought into excessive action, so as to occasion vomiting, and the same takes place when the brain is compressed, either by a fractured skull, or blood, or serum effused within the head, to an extent as to paralyse the whole nervous system. There is clearly an equilibrium of action existing between muscles and nerves, and if this be disturbed suddenly, the muscles become violently contracted, producing cramp or general convulsions, as in cases of epilepsy, from organic mischief or irritation in the brain. We also find the topical remedies which allay nervous excitement to increase muscular action or bring on spasms, as application of cold, loss of blood, prussic acid, lead, &c. The internal use of the vomic nut, or the preparation termed strychnine, will diminish nervous energy, and increase the excitability of muscles, so as to render their action independent of the will. Spasms are, therefore, not dependent on debility, nor are they nervous affections, but are the consequence of increased action of the contractile powers of muscular fibres, from excess, rather than diminution of excitability. The antispasmodics in general use are, morphine, the acetate of morphine, laudanum, henbane, cicuta, tobacco, sulphuric ether, ammonia, &c. When the complaint exists in the chest, stomach, or intestines, the acetate of morphine with ether and the camphorated julep, forms a very efficacious remedy. When the cause is an acid in the stomach, magnesia or soda will prove antispasmodic, and the efficacy is increased by an aromatic article, as peppermint water, or compound spirit of ammonia in water; when in the muscles of the belly or in the extremities, a mixture of ether and tincture of belladonna, held closely over the affected part, so as to prevent the evaporation of the ether generally allays spasms or inordinate muscular action, in a few moments. (*See* LAUDANUM, ACETATE OF MORPHINE, ETHER and SPASMS.) The most powerful antispasmodic medicine is the deadly nightshade, but this in too great a dose often throws the whole muscular system into excessive action. The anodyne vapour bath is also an excellent antispasmodic, when the complaint is extensive, or shifts from one part to another. In robust subjects, astringent medicines, as Peruvian bark, render the recurrence of spasms in those predisposed to them, more frequent and obstinate. The various articles employed as antispasmodics, like the

classes of purgatives and anodynes, act very differently on different parts of the body. Morphine, camphor, ether, various aromatics, &c. allay spasms in the stomach, whilst the colchicum seeds allay spasms of the uterus, bladder, and of the muscles of the legs, and excite them in the stomach and bowels. The stramonium, which disorders the stomach, seems to allay spasms in the chest. Turpentine and colchicum allay spasmodic affections of the muscles of the back, and will occasion them in the intestines. The topical application of cold water will allay spasms of the eyelids and the muscles about the scalp and temples, and excite them when applied to the feet, or the muscles of the leg, or when applied to the abdomen in the intestines. Tartarised antimony, although it occasions spasms in the stomach, relaxes disturbed muscles in a state bordering on spasms, and hence it is prescribed in cases of dislocation, in order to relax the muscles connected with the joint. Warm water or vapour seems to be a general antispasmodic, particularly when the complaint is occasioned by cold applications: yet we are told that water, at the reduced temperature termed cold or ice, and at a higher temperature than that of the healthy living body, are powerful stimulants. The term stimulant, like irritation and morbid action, is a very useful one to certain classes of practitioners. It puts an end to the enquiries of the inquisitive, and is an excellent cover for ignorance.

In spasms of parts of the body more immediately under the influence of the mind, as the nerves and muscles, charms and other fanciful remedies, in which the patient has great confidence, have often a very powerful effect. I know a gentleman whose intellects are much above mediocrity, who places under his bedstead a basin containing water and a piece of roll brimstone, to keep off cramp in the lower extremities, to which he had been subject for years during night; and he states, that he has been entirely free from them since he adopted it. It is also a popular practice with ladies, to place their stockings or shoes across under their beds, for the purpose of securing them against cramp, and some find immediate relief on making a cross with water over the part affected. The effect of such fancies must of course depend on the influence of the imagination, which in weak subjects is often very great. Confidence in a remedy, or in a practitioner, if not capable of curing a disease, it must be admitted, is a very powerful auxiliary to medicine; and when a patient has no confidence in either, the most judicious treatment of his case will probably not succeed. It is to confidence that opposite modes of treatment so often succeed in the cure of the same disease. It tranquillizes the nervous system, and calls forth the energy of that power of the system termed nature, or the *vis medicatrix*

naturæ, and thereby accelerates the operation of a judicious treatment, and has, no doubt, often succeeded in counteracting the baneful effects of an injudicious treatment. Quacks are so fully aware of the sanative influence of confidence, that they extol their remedies in the most extravagant terms, and under imposing names, in order to secure it; and hence, diluted spirit of wine, slightly flavoured with an essential oil, has been advertised under the names of balm of Gilead, balm of Mecca, balm of Rakasiri, &c. &c., and other plausible titles, to entrap the credulous.

APERIENTS or LAXATIVES. — Medicines which act mildly on the bowels. (*See* CATHARTICS.)

AROMATICS.—This class of remedies consists of articles of a pungent taste, with a fragrant odour. Those in common use are cinnamon, nutmegs, cloves, orange and lemon peel, Winter's bark, peppermint, spearmint, cardamom, caraway, anise, coriander and cummin seeds, cassia lignea, ginger root, &c. This class I shall notice under the head of STIMULANTS.

ASTRINGENTS.—Articles that constringe the soft solids of the body, and consequently increase their density and force of cohesion. When applied to longitudinal fibres, they diminish their length, but when applied to circular fibres of a cavity or vessel, they lessen the diameter. The peculiar effect of astringents in condensing animal fibres, has been said, by Cullen and others, to be clearly evinced by their use in the tanning of skins for leather; but it has been ascertained by Sir Humphrey Davy, that this operation is produced by a peculiar principle termed *tannin*, which is altogether distinct from that of the astringent. The manner in which the astringent principle acts on the living fibre, is, like the action of many other remedies, involved in mystery. If by stimulating the parts, it is clear it is a stimulus of a peculiar nature. They evidently increase the excitability of muscular fibres, and this effect is produced by articles, as lead, &c., which at the same time diminish the action of the nerves of the part, so that some act as a stimulus to muscular fibres, and an antistimulus or sedative to the nerves; most of them constringe the intestines, so as to occasion constipation, and this is attributed to a *stimulating* operation on the muscular coat of the canal. The operation of *purgative* medicines is also attributed to their stimulating effects. The chief, if not the only means of detecting the presence of the true astringent principle, is by its peculiar corrugating operation on the organ of taste; it corrugates the surface of the body, but as cold and spirituous applications have the same effect, it is not a decisive proof of the existence of the astringent principle. By this test we cannot say whether an article will constipate the bowels, for rhubarb and other medicines have a

local astringent effect on the tongue, and yet act as aperients when introduced into the alimentary canal. In cases of external inflammation of a passive or chronic nature, the vegetable astringents prove very beneficial by constringing the distended vessels and surrounding parts; and in active or acute inflammation, the acetate of lead, a powerful astringent, acts beneficially by constraining the distended vessels, and at the same time by diminishing the morbid excitement of the nerves. The astringent principle is a very important part of vegetable tonics. Indeed, without it, no vegetable production, however bitter, is, in my opinion, entitled to the term *tonic*, because it is only in cases of debility from relaxation of fibres, or from want of cohesion, that a tonic remedy proves beneficial.

Some physicians suppose that astringent medicines, taken into the stomach, act on a remote relaxed part by sympathy; and others suppose that they act only in such cases when the stomach is in a state of debility, when it proves beneficial by promoting digestion, and consequently by supplying the blood with healthy chyle for the support or nourishment of the body; but when it almost immediately restrains or diminishes hæmorrhage from the kidneys, or some other part remote from the stomach, we may suppose that the astringent principle enters the system, or is communicated by some continuous means with which anatomists and physiologists are unacquainted.

The astringent articles generally employed internally and externally, are, oak bark, pomegranate rind, gum è kino, japonic earth, rhatany root, Peruvian bark, green tea, alum, acetate of lead, sulphate and acetate of zinc, sulphate and acetate of copper, sulphate and acetate of iron, &c. When astringents are applied externally to constringe divided or ruptured blood-vessels, they are termed *Styptics*.

ATTENUANTS or DILUENTS. — Such medicines that render the blood or any of the humours more fluid. When it was the fashion to attribute many diseases to lentor, or thickness of the fluids (occasioning stagnation in minute vessels of glands, &c.), this class of remedies, like the blue pill of the present day, was held in great estimation. Two kinds are noticed by the ancient writers, *viz.* those which act mechanically, or as simple attenuants, by dividing the particles, as water, whey, and simple decoctions, and those which act chemically, as potass, soda, neutral salts, ammonia, sugar, ripe fruits, &c. Since the humoral pathology has been exploded, medicines are not prescribed with the view of attenuating the blood or the juices of the body; I am, however, much disposed to attribute the beneficial effects of the decoction of sarsaparilla, and other weak diet drinks, to their diluting effects on the contents of the stomach and on the blood,

and consequently on all the secretions of the body, as well the articles which were supposed to render the blood more thin by a chemical effect, as ammonia, potass, and the neutral salts, probably promoted its circulation by stimulating the heart and arteries. The spirit of hartshorn, which contains ammonia, is still a popular remedy throughout this country for increasing the fluidity of the blood, and we have frequently known it taken in cases of difficulty of breathing and slight cough, attended clearly with congestion of the blood-vessels of the lungs, if not with inflammatory excitement, with the most decided advantage; and also in cases of venous congestion of elderly people, attended with giddiness, difficulty of breathing, and great distension of the superficial veins. In the latter case it probably acted beneficially by increasing the energy of the heart and arteries, so as to accelerate the transmission of the blood through the veins. As ammonia renders the lymph of the blood more fluid out of the body, we think the opinion of the antients respecting its effects in rendering the blood more thin, and consequently more easily transmitted through the capillary vessels, and of preventing glandular obstructions, merits attention, as well as the mechanical dilution of the blood by simple liquids, as whey, distilled water, decoctions of sarsaparilla, bran, &c. &c.

BALSAMICS.—The ancients entertained a very high opinion of the healing or repairing powers of balsams, both when taken internally and applied externally. By the physicians of the present day they are never prescribed with a view of imparting a balsamic quality to the blood, but by surgeons they are still used as topical applications to promote the healthy digestion of ill-conditioned ulcers and for stimulating indolent ones, and by them are even prescribed internally in cases of ulceration of the kidneys, bladder, and prostate gland, often with the most decided benefit. By physicians their internal use is condemned as injurious in cases of ulceration of the lungs, on account of their stimulating quality; it is, however, worthy of notice, although they stimulate the healthy skin, and probably the stomach, they decidedly, after passing into the circulation, or after undergoing digestion in the stomach, have a contrary effect on certain membranes of the body affected with inflammation or irritative ulceration. Balsam copaiba, balsam Tolu, balsam of Canada, and even the oil of turpentine and of cubebs, &c., are often prescribed by experienced and observant surgeons and apothecaries in such cases, and they frequently succeed in allaying irritation, and in healing ulcerations in the membrane lining the wind-pipe, in the kidneys, bladder, and urethra, and have even proved beneficial in cases of actual hæmorrhage from the kidneys and intestines; we are not, therefore, to condemn the use of a medicine

in a case of irritative or inflammatory disease in a part to which it can only arrive through the medium of the circulation, because it acts as a stimulus when applied to the skin or to the stomach. The antients speak in very high terms of the Peruvian balsam, balsam of Tolu, styrax, Benzoin, &c., in cases of confirmed pulmonary consumption, and I am persuaded in those cases of ulceration which follow the separation of putrid tubercles, they, as well as other similar articles, as tar, myrrh, balsam of copaiba, are very important remedies.—(*See* PULMONARY CONSUMPTION.) The internal exhibition of the balsams above enumerated I have frequently found to act as powerful alteratives or correctives of sanious or ichorous discharges of ill-conditioned ulcers, and thereby to allay irritation, and also to correct the discharge of erysipelatous affections of the skin, and the erysipelatous habit. The balsams, in my opinion, are a very important class of remedies, and from their effects on the fluids of the body may be termed, in certain cases and constitutions, powerful alteratives. A late author observes, that "since the balsams cannot reach the lungs, &c., by any other means than the blood, they cannot have any beneficial effect on ulcerations, &c., of those parts;" but as the odour of the urine, and also of the breath, satisfactorily proves that they do enter the circulation and the correction of vitiated ulcerations on the surface of the body, of matter expectorated from diseased lungs, and discharged from ulcerations in the bladder, kidneys, and the membrane that lines the wind-pipe, &c., it is clear they do communicate some peculiar detergent or digestive quality to the blood.

CARMINATIVES.—A class of medicines which expel gas either from the stomach or from the intestines. There are two kinds of carminatives, one a simple aromatic, as the essential oils of peppermint, spearmint, carraway seeds, aniseeds, dill seeds, cinnamon, cardamom seeds, &c., which, by stimulating the muscular fibres of the alimentary canal, occasion them to contract, and force out the gas contained in it, and the antispasmodic carminatives, which act by allaying the spasms that occasion partial collections or confinements of gas in the canal; of this kind sulphuric ether, camphor, assafœtida, fœtid spirit of ammonia, and laudanum, are principally in use. When attended with constipation, an aperient should accompany the use of an antispasmodic, as the alcaline extract of jalap. In such cases the tincture of rhubarb with magnesia forms an excellent carminative remedy, to which may be added three or four grains of the extract of henbane. When the intestines are much distended by gas, carminatives, as assafœtida, essence of peppermint, &c., may also be administered clysterwise, in a warm infusion of camomile flowers or thin gruel. The best carmina-

tive for infants is fresh dill-water, in which a few drops of tincture of assafœtida, or a drop or two of liquid laudanum, may be added in case of spasms or griping pains, which are general attendants on flatulence of children. If acidity prevail, a common cause of spasms in tender bowels, calcined magnesia or liquor of potass is a necessary adjunct.

CATHARTICS.—Medicines which increase the alvine evacuations. Of this class there are two orders, viz. the mild, denominated aperients or laxatives; and the strong, termed purgatives. Of the first order are manna, castor oil, magnesia, olive oil, flowers of brimstone, Rochelle salt, Epsom salt, Glauber's salt, rhubarb, jalap, pulp of cassia, &c.; and of the second, scammony, bitter apple, gamboge, aloes, calomel, senna, elaterium, oil of croton seeds, &c. There is also an anodyne kind, as the henbane, foxglove, &c. Cathartic medicines are said to act by *stimulating* the muscular fibres of the intestines, so as to increase their peristaltic motion, and of course the internal membrane of the canal, so as to augment the fæcal and other secretions. The operation of an emetic, of an astringent, diuretic, &c., being also attributed to a *stimulating* quality, it must appear clear that the cathartic stimulus is of a peculiar nature. The different effects of the various cathartic medicines in common use merit particular attention. The saline aperients, by some termed the *refrigerant, or cooling aperients*, as the Epsom salt, Glauber's salt, Rochelle salt, and the native saline waters of Cheltenham, Leamington, &c., seem to act chiefly on the internal surface of the alimentary canal; and in consequence of reducing the temperature of the abdominal viscera, occasion a determination of blood to the head and chest, and griping, flatulent, small evacuations, which, by harassing the intestines, considerably reduce the strength of the system. They evidently act more on the stomach and small intestines, than on the lower portion of the bowels; and it has been observed, that the thin discharge passes through the latter, without dislodging their fæcal contents; hence, they do not increase the excrementitious secretion of the mucous lining of the colon. They are likewise improper in affections of the head and lungs, attended with congestion of the blood vessels, and as they increase the saline particles of the blood, they prove injurious in irritative affections of the kidneys, bladder, prostate gland, urethra, and rectum, and also in erysipelatous ulcerations or inflammation. Jalap, of which the best preparation is the alkaline extract, does not disorder the stomach nor the small intestines, but acts on the colon, and promotes secretion and discharge of fæcal matter; and as it does not irritate the rectum, is a very valuable aperient in cases of inflammatory piles or other irritative affection of the bladder, prostate gland, or urethra. The evacu-

ations it produces having the appearances and odour of healthy fæces; it is an excellent medicine for obviating costiveness. Another no small advantage this article possesses, is its increasing the secretion of the urine, on which account it is often prescribed with cream of tartar or calomel, as a purgative in cases of dropsy. Aloes also act on the lower bowels, and as they irritate the rectum, they prove beneficial in those affections of the head, in which it is desirable to produce a determination of blood or nervous energy to the rectum, or a return of piles; but in cases of inflammatory piles, or any irritative disease of the part, or of the bladder, prostate, or urethra, they are improper. Senna also acts like jalap, but it operates more powerfully on the mucous membrane of the large intestines, occasioning griping pains, and slimy and sometimes bloody evacuations.

Castor oil seems to act only by evacuating the intestines, and it generally leaves the stomach in a disordered state, and occasions distension of the bowels by gas. In inflammatory affections of the kidneys, bladder, or urethra, it is preferable to any other cathartic.

The oil of croton seeds, is a very powerful purgative, and it has been observed, that it produces watery evacuations, and increases the action of the absorbent system, and of the kidneys, and hence is a valuable purgative in cases of dropsy. The same may be said of elaterium.

The anodyne laxative, as extract of henbane, is a very valuable medicine, either alone or combined with the alkaline extract of jalap, in cases of irritative ulceration, or ulcerated strictures, or cancerous ulcerations in the rectum. It is a very valuable addition to a laxative or purgative in cases of constitutional costiveness from rigidity or irritability of the muscular fibres of the intestines, in the Devonshire cholic, or when the alimentary canal is so excitable that the mildest cathartic occasions griping pains or spasms.

The flowers of sulphur operate pleasantly on the intestines, and instead of irritating the rectum, which nearly all the cathartic medicines more or less do, they allay irritation attendant on piles or ulceration. In consequence of increasing the secretions of the skin, it is a very valuable aperient in many chronic and acute cutaneous diseases, particularly those which are termed leprous and land scurvy. (*See* HARROWGATE SALTS.) The ancients had a class of purgatives which extended their influence to the brain, and which, by carrying off *black bile*, they supposed to remove the cause of melancholy and madness. Of this class melampodium was the favourite, which produces blackish fæces,

and seems to act more beneficially in producing mental serenity than any other purgative.

By the addition of calomel, all purgatives are not only rendered more active, but their operation is more or less extended to the whole viscera of the abdomen; and hence, by purging the liver in particular, the fæces are generally highly charged with bile. In cases of indigestion, where the liver and other viscera do not perform their office, or their cellular parts are loaded with serum, or lymph, calomel is a very valuable adjunct to an aperient medicine, for if the viscera be sluggish, or their cellular substance overloaded, the good effects of an aperient, or a stomachic medicine, will be very temporary. The division of cathartic medicines into mild, powerful, visceral, and anodyne purgatives, is of great practical utility; but it is not to be understood that the *mild class* is more applicable to cases of debility than the *active*. On the contrary, in most cases of debility, a purgative that excites the intestinal canal, and produces two or three copious evacuations in two or three hours, will rouse the vital powers, particularly in cases of dropsy, gout, &c., whilst a mild one that keeps up slight nausea, constant grumbling in the intestines, and produces small flatulent evacuations, often considerably reduces the general strength; hence dropsy and an erysipelatous edematous swelling of the legs, particularly in gouty subjects, are common occurrences during the use of a native aperient saline water. It does not appear to me that any of the classes of cathartics unload the system of blood-vessels, so as to make any essential impression on internal inflammation, as of the pleura, lungs, brain, or peritoneum, unless preceded by abstraction of blood, and, in that case, a purgative seems to prove beneficial, chiefly by acting as a derivative, *i. e.* producing a determination of blood and of nervous energy to the alimentary canal and the abdominal viscera.—(*See* DERIVATIVES.) It seems in such cases to act in a great degree like an emetic after the loss of blood, by equalizing the circulation. In cases of inflammation of the pleura, lungs, and bladder, I have certainly observed an aggravation of the acute symptoms during the operation of a purgative when administered before the system of blood vessels has been properly unloaded by cupping or venesection.—(*See* EVACUANTS.)

CORDIALS or CARDIACS. — A class of remedies which the antients supposed, by a peculiar action on the heart (from whence the name cordial is derived), raises the animal spirits and invigorates the mind. The seat of the affections of the mind in which a cordial proves beneficial, as depression, grief, despondency, &c., appears to be in the region of the stomach, probably occasioned by a languid state of the ganglions in the

neighbourhood of the stomach, and it is probable, from their almost immediate exhilarating effect, that they act by invigorating the ganglions, and establishing a healthy harmony between the heart, abdominal viscera, and the brain. The most powerful cordials are spirituous infusions, or aromatic spirits, as the spirits or tinctures, compound and simple, of nutmegs, cinnamon, cardamom seeds, caraway seeds, juniper berries, aniseed, and the foreign liqueurs. Saffron was held in great estimation as a cordial by the antients, some of whom state that it is capable of producing involuntary laughter, and till within these few years it entered the composition of many officinal cordial medicines. It is now only employed as a colouring ingredient, and probably has very undeservedly fallen into disuse as a cordial medicine. It is a popular remedy in cases of recession of the measles, and of languid small-pox; and I am disposed to believe that in such cases, and also in general languor of the nervous system, or of mental depression, it is a valuable medicine. When the stomach is in a state of morbid excitement, or in a feverish condition from too great an indulgence in vinous or spirituous liquors, or savoury dishes, or when general fever prevails, the articles that quiet the circulation, allay nervous irritation, and reduce the temperature of the stomach, as cold water, soda water, the saline mixture in a state of effervescence, Mindererus's spirit, sweet spirit of nitre, and anodynes, act as cordials, whilst the aromatic spirituous cordials have a contrary effect by accelerating the circulation and confusing the brain. — (*See* NERVINES.) To the inebriate of a nervous or inflammatory habit, cold water or soda water, taken when the system is not under the influence of wine or spirit, is a most gratifying and refreshing cordial.

The aromatic spirituous cordials are administered in cases of gouty spasms in the stomach or bowels; in irregular or atonic gout; and as auxiliaries to tonic medicines in cases of great direct debility and relaxation of the alimentary canal, and of torpor of the nervous system.

CORROBORANTS or ROBORANTS. — Medicines which increase the strength of the body. Of this class there are two kinds, the one which augments the muscular power of the body, as rhatany root, Peruvian bark, &c., which I shall particularly notice under the head of TONICS; and the other, which strengthens and invigorates the nervous system, as the hibiscus abelmoschus, valerian, castor, &c. — (*See* NERVINES.)

DEMULCENTS. — The ancients gave this name to a class of medicines which they supposed to sheath the acrimony of the humours of the body, and thereby render them inoffensive. There are several kinds of demulcents, viz. the mild expressed oils, as that of the almond, olives, &c.; all insipid inodorous

plants which yield a mucilage to boiling water, and the animal and vegetable jellies. The most efficacious are the diluents, which I have noticed under the head of ATTENUANTS. When the acrid humour is an acid, the antacids, (*See* ANTACIDS.) by neutralizing it, have a demulcent effect, and if an alkali predominate, which is probably never the case, the antalkalines act as a demulcent. — (*See* ANTALKALINES.) When the blood is overcharged with salines, distilled water, or the decoction of marsh-mallow root, or of sarsaparilla, barley water, gruel, and cheese whey, or butter-milk, are proper demulcents. Decoction of quince-seeds, the almond emulsion, mucilage of gum arabic, barley water, and linseed tea, are the principal demulcents prescribed by physicians of the present day, and they are generally employed as vehicles for other medicines in irritative or inflammatory affections of the lungs, kidneys, bladder, or urethra. Some physicians contend that, in consequence of being decomposed in the stomach, demulcents cannot prove more efficacious than water; but the results of extensive experience have satisfactorily proved, that they are important auxiliaries in such complaints, and when the almond emulsion, barley water, or linseed tea, are freely taken for the common beverage, they have a very soothing effect.

DEOBSTRUENTS.—Medicines which are capable of removing glandular and other obstructions.—(*See* EMMENAGOGUES.)

DERIVATIVES.—Are a class of remedies which prove particularly beneficial in cases of inflammatory affections of a part of vital importance in the animal economy, or chronic inflammation attendant on organic mischief. By exciting inflammatory action in a part remote from the seat of the disease, they occasion a determination of blood and nervous energy, which tends to diminish its violence, particularly after an abstraction of blood. Of this class are blisters, mustard poultice, stimulating liniments of ammonia, issues, setons. Blisters and issues do not act entirely, as some imagine, by occasioning a determination of blood to the part, or by keeping up a purulent discharge; or, as the antients imagined, by affording an outlet for morbific humours, but chiefly by occasioning a determination of nervous energy, which reduces that of the affected part. In many diseases, purgatives act principally as derivatives, by occasioning a determination of blood and nervous energy to the intestines. — (*See* ESCHAROTICS and RUBEFACIENTS.)

DIAPHORETICS, or SUDORIFICS.—Medicines which (taken internally) increase the secretions of the skin. Of this class five orders may be noticed; viz.

1. *The stimulating diaphoretics.* — As the sub-carbonate of ammonia, guaiac gum, contrayerva root, &c., which are admi-

nistered in cases of chronic rheumatism, and irregular and tonic gout, and also in leucophlegmatic habits, or elderly people, and acute rheumatism, and during the gouty paroxysm when the inflammation is languid.

2. *Antispasmodic diaphoretics.* — Camphor, musk, opium, henbane, &c., given in cases of acute rheumatism and irritative affections of the bowels and lungs, in which it is desirable to produce perspiration.

3. *The saline diaphoretics*, as Mindererus's spirit, the saline mixture, &c., which are given in cases of inflammatory fever, or inflammation of the lungs.

4. *The nauseating diaphoretics*, which excite perspiration by nauseating the stomach, as ipecacuan, tartarised antimony, &c., generally employed for the purpose of giving activity to the preceding orders.

5. *The diluent diaphoretics*, as warm water, white wine, or cheese whey, &c. These articles are generally administered freely, after the exhibition of either of the other orders, to keep up or promote their operation. The warm vapour bath, and warm air applied to the surface of the body, by means of the apparatus termed the *sudatory*, are very effectual means of promoting the operation of a sudorific medicine, and when a diaphoretic fails to produce the desired effect, the sudatory should be employed. In cases of internal inflammation, diaphoretics, when they operate properly, *i. e.* occasion copious perspiration, act powerfully as derivatives. In inflammatory affections, a solution of the tartarised antimony (*See* EMETIC TARTAR and ANTIMONIAL WINE) is more certain in its operation than either ipecacuan powder or the compound powder of ipecacuan, termed Dover's sudorific powder, and very preferable to the latter, on account of the opium it contains disordering the head, or constipating the bowels; but in cases of rheumatism, chronic or acute, attended with general restlessness, Dover's sudorific powder generally acts more beneficially than any antimonial preparation, and in weakly or leucophlegmatic habits, should be preferred. (*See* SUDORIFIC MIXTURE.)

DIGESTIVES. — A class of remedies which, applied to ill-conditioned or irritative ulcers, produce healthy pus and granulations. In languid ulcers, the best digestives are ointments, cerates, or lotions, which contain turpentine or mercury, as the yellow basilicon, ointment of elemi, cerate of nitrico-oxyde of mercury, the phagedenic wash, &c. When the granulations are large or glassy, either the Peruvian bark powder, rhatany root powder, or rhubarb powder, with myrrh, is an excellent digestive. In cases of irritative ulcers, the hemlock powder, with a small proportion of calomel, or with the phagedenic wash, will

succeed better than the turpentine applications. In all cases of foul or irritative ulcers, the internal use of the blue pill, with such medicines as the state of stomach and intestines may indicate, will considerably promote the digestive effects of topical applications. Under the head of balsamics, I have noticed the digestive properties of some balsams taken into the stomach in cases of ulcerations of the lungs, kidneys, bladder, and rectum.

DILUENTS. — Articles which act beneficially in various inflammatory and irritative diseases, especially of the lungs, kidneys, bladder, prostate gland, urethra, &c., by diluting the serum of the blood, and probably the contents of the alimentary canal. The diluents in common use I have noticed under the heads of attenuants and demulcents.

DISCUTIENTS. — This term is applied to articles, simple or compound, which possess the power, when applied to the part, of dispersing glandular and other tumours. The most powerful discutients of inflammatory tumours after abstraction of blood by leeches or scarification, are the saturnine lotion, or spirituous lotions, or ointment of belladonna, with calomel. In indolent tumours, after unloading the blood vessels by leeches, the plaster of mercury and belladonna is the most powerful discutient with which I am acquainted. In all cases of glandular enlargements, particular attention should be paid to the state of the stomach, liver, intestines, and the system of blood vessels, (the sanguiferous system.) In cases of wen, and scrofulous tumours, the internal exhibition of iodine promotes the discutient effects of topical applications. In indolent tumours, electric sparks, by stimulating the absorbents of the part, act powerfully as an auxiliary to a discutient ointment, plaster, or lotion.

DIURETICS. — Medicines which increase the secretion of urine. This class of remedies is very numerous, and the effects of many are dependant on the state of the constitution. The neutral salts, particularly the acetate of potass, nitrate of potass, and acetate of soda, stimulate the kidneys, in consequence of being separated from the blood with the urine; but in dropsical complaints they fail to produce this effect, and by diminishing the temperature of the bowels, prove injurious in debilitated subjects, when attended with organic disease of the liver or stomach. In cases of advanced asthma and of dropsy, it is of great importance to increase the action of the kidneys; but in such affections and other complaints of debility, the kidneys are in such a languid state, that few diuretics, taken into the stomach, act on them. In such cases the purgative diuretics operate most beneficially, as the elaterium, foxglove, croton oil, and a combination of jalap and cream of tartar, and when they succeed,

the turpentine medicines, with a tonic, as Peruvian bark, &c., have a very good effect in keeping up the secretion, and improving the general health. Mercury, as calomel or the blue pill, act as a powerful auxiliary to diuretic medicine, probably by increasing the action of the absorbents, so as to convey the effused serum to the mass of blood, and thereby call the kidneys into action, or by rendering the kidneys more susceptible of the action of the direct diuretics. The most efficacious direct diuretics are the squill, the buchu leaves, oil of turpentine, liquor of potass, sweet spirit of nitre, oil of juniper, wild carrot seeds, and parsley root. In cases of dropsy, attended with considerable general debility, cordial tonic medicines, electrical sparks, and friction, act as powerful assistants to diuretic medicines. In some cases of dropsy, attended with general plethora, and increased arterial action, diuretics, as the squills pill, with foxglove and calomel, act powerfully on the kidneys, after abstraction of blood from a vein, in consequence, perhaps, of the absorbents being called into action by the loss of blood. It is, however, a very nice point to distinguish the cases of dropsy in which bleeding may prove beneficial, from those in which it may accelerate dissolution. If the complaint be attended with ossification of arteries in the chest, or any structural disease of the heart, particularly if the stamina be not good, abstraction of blood will prove highly injurious, even when the blooded vessels are apparently overloaded, or the arterial system in a state of excitement. Diuretic medicines, as the liquor of potass, acetate of soda, and buchu leaves, often act beneficially with tonic medicines in cases of indigestion from debility of the digestive organs. By exciting the action of the kidneys, they improve the sympathy or harmony which in health exists between them and all the viscera. The correction of the functional action of one viscus has often a beneficial effect on all the viscera in the same cavity, in consequence of the sympathy which exists among them. Although diuretics seem to be contraindicated in cases of diabetes, the turpentine class, in conjunction with a tonic medicine, generally proves beneficial, probably by correcting the morbid action of the secreting vessels of the kidneys, and thereby producing healthy urine. In cases of suppression of urine, from deficiency of nervous energy, or from spasmodic constriction, the warm bath and electric shocks through the region of the kidneys, are powerful auxiliaries to the saline diuretics. (*See* PREPARED SODA, SQUILL PILL, SWEET SPIRIT of NITRE, NITRE POWDER, SALT of WORMWOOD.)

ECPHRACTICS.—Medicines which are supposed to remove obstructions, by alleviating viscid humours. (*See* EMMENAGOGUES.)

EMETICS.—Medicines which excite vomiting are thus termed. The emetic articles chiefly employed in modern practice are the ipecacuan root, tartarised antimony, the sulphate of zinc, and the sulphate of copper, each of which has its advantages in different diseases, and under different circumstances, particularly in regard to the state of the constitution. Emetic substances, it is said, act by *stimulating* the nerves and muscular fibres of the stomach. The antinauseating aromatics prevent vomiting by their *stimulating* effects and purgatives; the classes of astringents, irritants, anti-irritants, and even tonics, *anti-stimulants*, operate by a *stimulating* principle, so that the class of stimulants embraces nearly all the articles of the materia medica. Poisonous articles, as arsenic, oxalic acid, &c., we are told, occasion vomiting, by rousing the superintending or conservative power, termed the *vis medicatrix naturæ*, which, in order to expel the poison, brings into action all the powers by which vomiting is effectually produced; and if this be the case, all the articles employed as emetics, or even as cathartics, probably possess some deleterious or poisonous quality, which may excite the conservative power to expel it either by vomiting or by purging. Certain it is, three of the articles in general use are mineral poisons, *viz.* antimony, zinc, and copper. The manner in which vomiting is effected is very clear. The article first acts on the stomach, and sometimes the contents are suddenly ejected without any straining, and, consequently, by the action of the muscular fibres of the stomach alone, and this is the case in eructations and in ruminating, a power which many people possess. When the emetic article excites much nausea or disturbance in the stomach, the diaphragm, the muscles of the abdomen, and the chest are called into action to assist the stomach, the consequence of which is, the operation is effected by much straining and involuntary exertions. Majendie, a celebrated French physiologist, asserts, that the stomach "is a mere passive instrument in the act of vomiting," so that the exciting article, by its *peculiar stimulating* effects, bring certain muscles of the belly and chest into action, and not the muscular fibres of the stomach! When the stomach is disordered, either by improper food or a poisonous article, it is of great importance to employ it speedily, but the use of an emetic is not confined to this purpose. Their secondary operations, in a variety of diseases, are numerous and highly important, and, in the hands of cautious or judicious practitioners of experience, they are most valuable remedies. In cases of fever or of internal inflammation, the nausea that precedes vomiting uniformly proves very beneficial, by increasing the discharges from the skin, and by diminishing arterial action, and in such cases the article which occasions most nausea and

action of the muscles excited by a full dose. As ipecacuan powder or wine is very apt to fail to excite full vomiting, it is good practice to add to a dose of either one grain of tartarised antimony to quicken its operation, paticularly in cases in which it is desirable to produce speedy and full vomiting. — (*See* IPECACUAN POWDER and TARTAR EMETIC.) The operation of an emetic may be greatly expedited by irritating the fauces with the finger or a feather, or by introducing the finger into the gullet as far as it will go; and in cases of poisons it is always advisable to attempt to excite vomiting by these means, which, after a copious draught of warm water, often succeed. The introduction of the probang into the stomach I have known immediately to occasion vomiting. On being withdrawn the stomach contracts generally so as to occasion part of its contents to follow the sponge, and the abdominal and thoracic muscles are evidently more or less brought into action by the peculiar irritation it excites in the gullet.

In cases of poisons taken into the stomach, the instrument invented by Mr. Jukes, termed the stomach pump, affords the most certain means of removing and diluting the poison. Washing the stomach out with warm water, and occasionally distending it by means of this invention, are of essential service in cases of suspended animation, by diffusing heat through the viscera of the chest and belly, and by agitating, or otherwise stimulating the heart and lungs. In cases of paroxysms of drunkenness the stomach-pump may be used with great advantage.

EMMENAGOGUES, ECPHRACTICS, and DEOBSTRUENTS. — The medicines which remove certain glandular obstructions, and promote the monthly secretion of the uterus, are thus termed. This class comprises many articles, some of which act in improving the general health, and in increasing the determination of blood to the uterus or its neighbourhood, as the common saline preparations of iron, aloes, &c.; others act on the uterus, as mercury, &c.; and these combined, viz. iron, (by improving the general health and increasing arterial action,) aloes, (by stimulating the rectum,) and mercury, (by acting on the uterus,) generally succeed, sooner or later, in bringing on the uterine secretion, both in cases of retention and of suppression. When the sanguiferous system is overloaded, or when a determination of blood takes place to the brain or to the lungs, abstraction of blood and derivatives to the extremities are often necessary. There are, perhaps, some articles that act specifically on the uterus in promoting its monthly secretion, but as they may be abused by the abandoned, it would be improper to notice them

in a work intended for popular perusal. When the uterus does not perform its monthly office, the directions I shall give under the heads of retention of the menstrual secretion, (green sickness) and suppression of it, will succeed, when they are the consequences of any local or general disorder. As a deobstruent madder has been highly extolled by some eminent physicians of Edinburgh and London, but the experience of sober practitioners has proved fatal to its deobstruent character. Iodine and the blue pill are the fashionable deobstruents of the day; and they are, no doubt, entitled to a trial. Electricity, the warm-bath, sea air, and the Malvern water are powerful auxiliaries to deobstruent medicines.

EMOLLIENTS.—Applications which possess a power opposite to that of the astringent, viz. of relaxing or diminishing the cohesion of the soft solids of the body. When they are used internally they are termed *demulcents*. The class of emollients is numerous; they are applied in various forms, as poultices, ointments, liniments, warm vapour, and fomentations. They prove beneficial in cases of ulcerations, attended with rigidity, irritation, spasms, deficiency of secretion, or dryness of the skin, and also of rigidity or stiffness of joints, contractions of tendons, muscles, &c. It is supposed that they succeed in consequence of being absorbed, or of insinuating themselves into the cuticle or the substance of the affected parts, and thereby diminishing the degree of cohesion. Those in common use are the sweet expressed oils, (as almond oil, olive oil,) spermaceti ointment, the saturnine ointment, oatmeal and linseed poultices, warm vapour of decoction of hemlock or poppies, &c. Emollients are rendered more efficacious by an addition of such articles as allay nervous and vascular action, as a solution of opium, infusion of hemlock, or decoction of poppies; and when the discharge is ichorous, or the edges of the wound be reflected or thickened, the addition of a little mercurial ointment to a greasy application, or thinly spread over the surface of an emollient poultice, generally proves very efficacious in allaying irritation, dispersing hardness, and bringing on healthy purulent discharge and granulations. — (*See* DIGESTIVES.) The internal use of a mercurial alterative, as the blue pill, and such stomachic and aperient medicines as the state of the alimentary canal may indicate, never fails to co-operate with emollient applications to external diseases.

EPULOTICS.—External applications that hasten the healing of ulcerations. The brown cerate was termed epulotic cerate by the ancients, but neither it nor any other article will heal an ulcer, unless it be brought into a healthy state by a digestive or emollient application. — (*See* DIGESTIVES and EMOLLIENTS.)

ERRHINES or STERNUTATORIES.—Articles which, on being applied to the internal membrane of the nostrils, in the manner of snuff, increase its secretion. The mildest are termed *errhines*, and the stronger sort *sternutatories*. The latter also generally excite sneezing. In nervous affections of the head, and in cases of venous plethora of elderly people, a sternutatory, as the compound asarabacca snuff, by increasing the secretion of the nostrils, by unloading the venous sinuses of the brain, and equalizing the circulation (for sneezing, like vomiting, has this effect), affords great and often immediate relief, and is an important auxiliary to such remedies which the state of the alimentary canal and nervous system may require. In cases of considerable determination of blood to the head, or arterial plethora, sneezing is sometimes very injurious. In such cases an errhine is preferable to a sternutatory; but when the venous sinuses are overloaded from retarded or obstructed return of blood from the head, which in elderly people is a common cause of giddiness, sneezing by giving an impulse to the circulation often acts very beneficially. Sternutatories are also very beneficial in cases of gutta serena and deafness from local congestion and local deficiency of nervous energy. A composition of the finely-powdered leaves of rosemary, lavender, asarabacca, sage, and balm, forms a good errhine, and when camphorated, with the addition of a few drops of essential oil of rosemary, it affords a good sternutatory. The addition of common snuff, as in the advertised cephalic snuff, counteracts its peculiar action on the membranous lining of the nostrils.

ESCHAROTICS or CAUSTICS.—Articles which destroy the vitality or organization of a part to which they are applied. They are divided into actual and potential. The actual cautery, which was much used by the antients, is a red hot iron or actual fire, which has lately been revived in France under the name of *Moxa*. By means of the actual cautery, after the destroyed part has been thrown off, an ulcer more or less deep remains, which, by beans, peas, or other mechanical applications, is kept open with a considerable discharge. The potential caustics, as pure potass, pure soda, lunar caustic, the muriate of antimony, the nitric acid, &c., are applied for the same purpose, and also for destroying warts and other excrescences, luxuriant or unhealthy granulations, poisoned parts, and for removing the unhealthy surfaces of ulcers. To diminish the pain of a potential caustic, some surgeons mix opium with it. These caustic applications, and the modes of using them, are given in a very useful practical work lately published under the title of the "New Medico-Chirurgical Pharmacopœia."

EVACUANTS.—This class embraces a great variety of re-

medies, as cathartics, diaphoretics, diuretics, emetics, errhines, blisters, &c., which are noticed in their alphabetical order. The most powerful evacuant, or the one which has the greatest effect in local or general congestion of blood-vessels, one which requires more judgment in its management than any other, and the one which has more opposite effects according to the mode in which it is executed, is *abstraction of blood.* The quantity of blood in the sanguiferous system (heart, arteries, and veins,) is reduced by four means, viz. by leeches, by scarification (cupping), by puncturing a vein (venesection), and by opening an artery (arteriotomy); each of which has its particular advantages in different diseases, and under different circumstances, particularly in regard to the constitution, certain predispositions, and periods of life. During the period of youth, when the arterial system contains more blood than the venous system, abstraction of blood from an artery produces a greater impression on inflammation (particularly of an internal organ) and inflammatory fever, than from a vein, and the blood taken by means of scarification or leeches is more arterial than venous. During manhood, when the quantity of blood in the arteries and veins is nearly equal, abstraction of blood by means of cupping (in which case the blood escapes from arteries and veins) seems to be preferable either to venesection or arteriotomy; and in cases of internal inflammation, the irritation excited by the operation acts beneficially as a *derivative.* —(*See* DERIVATIVES.) In elderly subjects the system of veins contains a much greater portion of blood than the arterial system, probably in consequence of the heart and arteries not having the power of properly propelling it through the veins. The venous sinuses of the brain of an elderly or very debilitated subject frequently become overloaded, so as to occasion giddiness and even apoplexy; not in consequence of an increased afflux of blood to the head, but of its return from the head by the venous sinuses and veins being retarded. The venous system is often so overloaded, particularly in elderly subjects, whose principal arteries of the chest are ossified, that the heart becomes so exceedingly oppressed, as scarcely to be able to keep up a sufficient circulation for the support of the vital functions. In such a case, it will appear evident, that blood should be taken from a vein instead of an artery. Abstraction of blood from a vein of an elderly subject, whose vital powers are so oppressed, often invigorates the whole system, by diminishing the cause of the oppression of the heart; whereas blood taken from an artery, or even by cupping, (when the blood is chiefly arterial,) will endanger life.

The effect of abstraction of blood greatly depends on the manner in which it is accomplished; where it escapes slowly, as from

the punctures of leeches, a few ounces reduce the strength of the body more than three times the quantity when taken from a large orifice of a large vein of the arm. In the former instance the extremities will often become cold, and the circulation very languid, and, at the same time, the inflammation of an internal organ will continue; but in the latter case, a re-action will take place, the circulation will be increased in the extremities, and so equalised throughout the body as to remove the local inflammation; and with this effect experienced physicians are so well acquainted, that it is common for them to order their patients afflicted with inflammation of the lungs, or pleura, or of a viscus of the abdomen, to be bled till he faints, in which case the re-action is much greater. — (*See* effects of vomiting in equalising the circulation, under the head of EMETICS. *See* also REMARKS on BLEEDING.)

EXPECTORANTS. — A class of medicines which facilitates expectoration, or excites or increases the mucous secretion of the membrane lining the wind-pipe and air-vessels.

There is a variety of medicines that promote expectoration, the action of which depends on the state of the membrane, and often on the state of the system. In cases of chronic cough or asthma in elderly people, the mucous secretion, by lodging in the bronchial tubes, often becomes tough, so as to require great exertion to bring it up. In such a case, a stimulating expectorant will be proper, as the squill or gum ammoniac, or both, as the squill pill with the spirit of sal. volatile: assafœtida and myrrh are also useful stimulating expectorants in such cases. They act not only by producing a secretion of mucus of less tenacity, but by increasing the power of expectoration. When the membrane is in a state of inflammatory excitement, and the secretion not sufficient to lubricate it, emetic tartar or ipecacuanha powder, in *nauseating* doses, exhibited in a demulcent vehicle, as almond emulsion with gum arabic, is the best remedy. By abating the excitement and relaxing the whole body, either ipecacuanha powder or emetic tartar generally succeeds in producing a secretion of mucus that may be expectorated with facility, and when this begins to take place, the inflammatory action or excitement generally subsides. In cases of chronic cough, attended with debility, this class of expectorants, it is clear, would increase the difficulty of expectorating, and endanger life. If the inflammatory excitement of the membrane be attended with fever, loss of blood, blistering, and the other remedies recommended for pleurisy, will be necessary. When attended with considerable irritation or troublesome dry cough, the acetate of morphine is a very valuable auxiliary to demulcent and nauseating remedies. The inhalation of warm vapour is very useful in all cases of difficult or deficient expec-

toration. In cases of chronic cough or asthma, the vapour of a decoction of the hop is generally very beneficial. In the same complaints in elderly subjects, whose powers of expectoration require a stimulus, the inhalation of the vapour of tar or of ether (evaporated in a saucer over a candle) generally proves useful; and in cases of inflammatory excitement or morbid irritation of the membrane lining the windpipe, the vapour of a decoction of hemlock or of poppy-heads affords relief. In chronic affections, breathing of oxygen for fifteen or twenty minutes, two or three times a day, not only promotes expectoration, but improves the general health. It has been said, that stimulants cannot reach the lungs through the medium of the circulation, so as to act on the internal membrane of the bronchial vessels; and yet the same writer attributes diuretic effects of squill root to its stimulating action on the secreting vessels of the lungs. The peculiar odours the internal use of assafœtida and ether communicate to the breath, are strong if not decisive proofs of their reaching the lungs through the medium of the circulation; and in chronic affections, where the parts are evidently in a state of debility, their effect in promoting expectoration cannot be attributed to any other property than stimulant. In cases of inflammatory excitement, we also find that they check expectoration and aggravate the complaint.—(*See* effects of vomiting, &c., under the head of EMETICS. *See* also SQUILL PILL, IPECACUANHA POWDER, TARTARIZED ANTIMONY, ASTHMA, and COUGH.)

HYPNOTICS.—(*See* SEDATIVES.)

IRRITANTS.—Articles capable of exciting irritation, such as bruised mustard seeds, subcarbonate of ammonia, cantharides, the class of aromatics, &c.—(*See* RUBEFACIENTS and STIMULANTS.) The topical application of stimulating articles proves beneficial in cases of local debility, either from deficiency of sensibility of nerves, or what is termed nervous energy, or by some writers (who suppose that a subtle fluid, similar to the galvanic fluid, circulates in the nerves,) of "*nervous fluid.*" They act in cases of debility by exciting irritation, and yet we are told by a late writer, "that every person knows that *irritation* is dependant on debility!" In noticing the different irritants or stimulants, authors should have made a distinction between those which increase the power inherent in muscles, termed irritatibility, or *vis insita*, and the sensibility of nerves. There are two properties or powers residing in muscles, the one by which they contract, or the contractile power, termed irritability, or *vis insita*, which is independent of nervous influence; and the *vis nervosa*, by which they act when excited by the nerves.

Some stimulants, no doubt, act as in cases of paralytic affec-

tions, by increasing the sensibility of nerves; and others by increasing either the *vis insita* or *vis nervosa* of muscles.—(*See* GALVANISM and ELECTRICITY.)

INIRRITANTS.—Inirritants are those articles that allay irritation, either taken internally or applied to an external part. Both will be noticed under the head of SEDATIVES. (*See* also DEMULCENTS and EMOLLIENTS.)

LAXATIVES—Are such cathartic medicines which act mildly, termed also aperients. They are noticed under the head of CATHARTICS.

LITHONTRIPTICS.—Medicines which are capable of decomposing a stone lodged either in the pelvis of a kidney, a ureter, or in the bladder. Of late years this term has been applied to articles capable of correcting the predisposition of the system to form calculi.—(*See* ANTILITHICS.) When a calculus is chiefly formed of the uric acid, an alkali, by neutralising the acid, and rendering it soluble in healthy urine, or urine diluted by a free use of a demulcent liquid, may act as a lithontriptic, and when formed by a deposit of salts, which the urine could not keep in a state of solution, in consequence of a deficiency of acid, as white gravel, an acid may also act as a lithontriptic.—(*See* ANTALKALINES.) From the frequency of calculous complaints in certain districts, it is probable the cause may be traced to the water. At the Norwich, the Bristol, and the Birmingham hospitals, the operation of extracting the stone (lithotomy) is performed once or twice a week, generally on children under twelve years of age; and at other provincial hospitals, as at the Hereford infirmary, a case of stone has not occurred since their establishment. It may be said, if the disease be the consequence of the use of water impregnated with calcareous earth, or any other local cause, why are those on whom the operation has been performed not subject to it again after they return to their homes and follow the same occupations and modes of living? This sometimes happens; but the cases are so very rare, that I am disposed to think that we are much in the dark as to the real cause of the prevalence of stone in some districts. The formation of stone has been attributed by some theorists to the use of acids, but in no county in this country is an acid beverage more drank than in Herefordshire. A method of decomposing a stone in the bladder has lately been proposed by means of positive and negative galvanism, which I suspect is not practicable. It is said that a calculus has been completely decomposed by the galvanic fluid out of the body.—(*See* STONE, GRAVEL, and PREPARED SODA.).

NARCOTICS.—A class of medicines which have the power of occasioning sleep.—(*See* SEDATIVES.)

NERVINES or NEUROTICS.—Medicines which act pri-

marily on the nervous system, either by allaying a morbid degree of sensibility, or by increasing its energy. The physiology of the nervous system, its connection with the muscular system, and the various operations of the mind so immediately connected with what may be termed its root or origin (the brain), are involved in such obscurity, that there are only two conditions of the nervous system noticed by practitioners in general, viz. *increased* sensibility, and *diminished* sensibility. Some physiologists have attributed volition, which is effected by means of nerves, to a subtle *fluid*, termed the nervous fluid, which they suppose to be similar to the electric or galvanic fluid; and that by the same subtle fluid sensation is conveyed from every part of the body, by the nerves, to the brain (the seat of the mental operations); hence this supposed fluid is conveyed, by nerves, from the brain to all the muscles under the influence of the will, to bring them into action, and is returned from every part susceptible of feeling, for the purpose of conveying sensation, painful or pleasurable, to the brain. For instance, if a person should put his foot on a red hot iron, the painful sensation is transmitted, with the rapidity of lightning, to the brain, by a nervous fluid, and with the same celerity, the nervous fluid of volition is conveyed to the muscles of the leg, to remove the foot from the article which excited the sensation, and this said fluid is often, at the same time, conveyed to the muscles of the arm to assist in removing the cause of the sensation, all of which is accomplished in the "twinkling of an eye." If a fluid did circulate in the nervous system similar to the galvanic fluid, its existence might surely be ascertained by the employment of non-conductors, or by exposure of the ends of a divided large nerve, or by other experiments. Many physiologists, equal to the task, have made numerous experiments, in order to ascertain whether a subtle fluid is in any way connected with the nervous system, and they have not been able to discover one phenomenon in favour of the hypothesis. I have, therefore, in speaking of the nervous system, instead of employing the term *nervous fluid*, used that of *nervous energy*; for instance, in accounting for the operation of derivatives or rubefacients, instead of saying they prove beneficial by occasioning a determination of nervous *fluid*, I say a determination of nervous *energy*. Under the heads of astringents and irritants I have made some observations on the nervous energy, and on the powers inherent in muscles, termed the *vis insita* (*irritability*), and the *vis nervosa*; and in order to elucidate the mode of operation of the different medicines which act on the nervous system, either in diminishing or increasing its sensibility or energy, or in rendering it steady or subservient to the will, I shall give a chapter on the nervous temperament in the second part of this work, and also

an article on nervous complaints. It is common for practitioners to attribute all diseases, in which the nervous system is primarily or chiefly concerned, to debility, and consequently to prescribe tonic medicines, and a generous stimulating diet, as the Peruvian bark, saline preparations of iron, aromatic tinctures, wine, &c., by which complaints dependant on, or arising from increased sensibility or excitement, are frequently so much aggravated as to render the brain incapable of performing its intellectual functions. Increased energy or sensibility of nerves, like increased excitability of muscles, is more the consequence of too much nervous strength than of nervous debility, at any rate, in people possessing great muscular power, the nervous system is often in a state of increased sensibility. An excess of vigour or sensibility of nerves is more an indication of an increase than diminution of the living principle. The remedies generally employed to reduce the morbid sensibility of the nervous system I shall particularly notice under the head of SEDATIVES. When the nervous system is in a state of torpor, the stimulating or cordial tonics are the appropriate nervines, a class of remedies I have already noticed under the head of CORDIALS. (*See* also STIMULANTS and TONICS.) To the cases of debility of nerves occasioning paralytic tremors, in consequence of a diminution of that power inherent in muscles, which bring them under the influence of the nervous energy, or, properly, under the will, the medicines which are termed nervous tonics, as the tincture of the hibiscus abelmoschus, buchu leaves, valerian, castor, musk, &c., with such adjuncts as the state of the digestive organs may indicate, are particularly applicable. In cases of local palsy, from diminution of sensibility, the *rubefacients* or local stimulants, with such remedies as the state of the constitution and the blood vessels of the brain may indicate, are most successful. There is a disease often mistaken for palsy, from diminished nervous energy, which is dependant on diminution of irritability, (*vis insita*,) or of the *vis nervosa*, in which the nerves of the part are not affected, their sensibility being neither increased nor diminished. In such a case, tonic medicines, general and local, and the application of the galvanic fluid, which operates more on muscular fibres than on nerves, are the most efficacious remedies. When the muscular system is relaxed, astringent medicines promote the efficacy of direct nervine remedies, either sedatives or cordials, probably by increasing the harmony between the muscular and nervous systems, the interruption of which is a common cause of irregular action in the former, as spasms, convulsions, &c., and of increased excitement or sensibility of the latter. The brain, and parts of the nervous system, appear to become irritable or disturbed, in consequence of torpidity of the gan-

glions of the stomach, which follows the continued excessive use of spirituous or vinous liquors, or of grief and the depressing passions, the seat of which seems to be in the ganglions of the stomach, or in its immediate neighbourhood. In such cases a stimulant taken into the stomach by rousing their action, and probably by increasing communication existing between them and the brain, act almost instantaneously in quieting the whole nervous system, and in enabling the brain to perform its intellectual functions. (*See* CORDIALS.) Increased sensibility of the nervous system is often attended with considerable depression of spirits or melancholy, with symptoms of indigestion and morbid secretions, particularly of the liver and kidneys. In this temperament the digestive organs are frequently so much disordered as to induce the patient, and his medical adviser, to refer the disordered state of the general health either to indigestion or some derangement of the liver; and in many cases the products or effects of indigestion keep up the general disturbance of the nervous system. In such cases the anodynes, as laudanum, henbane, prussic acid, &c., often act as cordials to the mind, and also as stomachics, by quieting the nervous system, which in cases dependant on debility or torpidity of nerves would have had a contrary effect. The varieties of indigestion arising from morbid sensibility or nervous excitement of the stomach, and from torpidity or relaxation, I particularly noticed in the Gazette of Health, about eight years ago, since which two or three works have been published on the former variety.

OPIATES.—Medicines which procure sleep.—(*See* SEDATIVES.)

PURGATIVES.—(*See* CATHARTICS.)

REFRIGERANTS.—Articles which reduce the temperature of the body. This class is divided into *external* and *internal*. The external are general and local. The general are the cold-bath, affusion of cold water, and exposure of the naked body to a cold air (termed, by the late Dr. Darwin, the cold-air bath). The cold-bath, by immersion or by an artificial shower (shower-bath), is used in cases of general debility or relaxation, to increase the cohesion of the body, in which case the warm tonic medicines are generally employed with it. It not only strengthens the muscular system, but generally allays morbid sensibility of the nervous system, and the re-action which follows its use rouses the vital powers, and tends to equalise the circulation. The application of cold water by affusion, that is, pouring it over the body, and also by sponging the surface of the body, has proved highly beneficial in cases of inflammatory and typhus fever, by reducing the degree of temperature, and allaying morbid excitement of the nervous system, and probably in typhus fever by increasing the cohesion of the

soft parts, so as to support the vital powers against its debilitating effects. When internal inflammation exists either in the lungs or any part of the abdominal viscera, cold affusion is improper. The external topical refrigerants are cold water, ice, spirituous lotions, solutions of lead, and the vegetable sedatives. The refrigerant effects of lotions are promoted by evaporation of its spirituous portion, as spirit of wine or ether.—(*See* ETHER.) The addition of lead increases its operation by its sedative influence on the nerves, and in case of inflammation, by constringing the distended vessels. The anodynes, as morphine, belladonna, prussic acid, &c., by reducing the excitement of the nerves, also act as refrigerants. The internal refrigerants are, dilute solutions of neutral salts, as nitrate of potass, of acetate of ammonia (Mindererus's spirit), of citrate of potass (saline mixture), and certain vegetable and mineral acids, as lemon juice, tartaric acid, sulphuric and muriatic acid. The anodynes, as morphine, foxglove, henbane, prussic acid, reduce the heat of body by diminishing nervous energy and arterial action, and the sudorifics by keeping up evaporation from the surface of the body. Of the saline articles, the nitrate of potass (nitre) is the most powerful refrigerant. Notwithstanding its diuretic effect is attributed to its stimulating action on the kidneys, and its supposed influence in increasing the stimulating quality of the blood, it assuredly diminishes irritation and inflammation in the kidneys, bladder, urethra, and lungs; and although it does not act either as an aperient or sudorific, it reduces the temperature of the body and allays thirst. The effects of the vegetable acids in quenching thirst and cooling the body are well known. Dr. Murray attributes their *modus operandi* to less consumption of oxygen gas by respiration during their use. It is known, says the Doctor, "that the animal temperature is derived from the consumption of oxygen by respiration, and that an increase in that consumption will occasion a greater evolution of caloric (the matter of heat) in the system, and, consequently, an increase of temperature in the body, while a diminution in the consumption of oxygen will have an opposite effect. If, then, when the temperature of the body is morbidly increased, substances be introduced into the stomach that contain a large proportion of oxygen, especially in a loose state of combination, we may succeed in reducing the general temperature. This (continues the Doctor) we accomplish in part by a vegetable diet, but still more effectually by a free use of acids." In the first place, I have ascertained by *repeated* experiments, that the inhalation of pure oxygen gas instead of increasing the temperature of the body reduces it, and also diminishes arterial action; and, in the second place, supposing the temperature of the body be increased according

to the quantity of oxygen that is received into the system, it surely can make no difference whether it be supplied by the lungs or received from articles taken into the stomach. The Doctor is an advocate for theorising, because theorising is only drawing inferences from reflections. There is, however, a great difference between theorising on facts and theorising on hypotheses. It is too much the fashion in medicine first to form an hypothesis, and then to bring forward a long train of theoretical fancies founded on it, and even to make facts by ingenuity of argument to bend to the theory, the grand object of which is *notoriety!* It is scarcely necessary to observe, that refrigerants, both external and internal, operate more certainly and effectually after abstraction of blood, and after the operation of a purgative medicine. In cases of inflammatory fever, with or without internal inflammation, the propriety of uniting the saline, diaphoretic, and sedative medicines is obvious. The constant application of cold water, or an evaporation lotion, to the head, considerably reduces the temperature of the body. Pure water, barley-water, &c., also cool the body, by diluting the serum of the blood and by keeping up perspiration. — (*See* ATTENUANTS.)

ROBORANTS. — Remedies which increase the strength of the body. — (*See* CORROBORANTS.)

RUBEFACIENTS. — Articles which applied to the skin excite considerable redness, heat, &c. The rubefacients in common use are, the ointment of tartarised antimony, liquor of ammonia, diluted muriate of antimony, spirit of turpentine, cajeput oil, bruised or ground mustard seeds, euphorbium plaster, gum plaster, Burgundy pitch, caloric, electric sparks, and nettles. They act beneficially in cases of internal inflammation, particularly the chronic kind, inflammatory excitement of membranes of joints, deep-seated rheumatic pains, &c. They are also employed to promote the suppuration of indolent abscesses, and to rouse the action of absorbents in cases of indolent tumours, and also to invigorate the nerves of paralysed parts, and increase the *vis insita* and the *vis nervosa* of muscles. — (*See* DERIVATIVES.)

SEDATIVES, ANODYNES, HYPNOTICS, OPIATES, NARCOTICS, SOPORIFICS, and PAREGORICS. — A class of medicines which diminishes nervous excitement, allays pain, and procures sleep.

The sedatives employed by practitioners of the present day are, opium, deadly nightshade, the wild and garden lettuce, meadow saffron, henbane, hemlock, stramonium, tobacco, prussic acid, and lead.

Some theorists suppose that the primary action of all the vegetable sedatives is a peculiar stimulant, which speedily occasions an extreme exhaustion of the vital powers, of which the

diminution or cessation of pain and sleep are the consequences. This supposed primary effect is only evident, and then but slightly so in very nervous subjects, and in such cases it may be attributed, as Professor Cullen observes, to an effort of the conservative power of the body to resist its action. We have very often witnessed the *immediate* sedative effect of opium taken into the stomach, even in a part remote from the stomach, and also of its topical application to a painful ulcer. We are therefore inclined to believe, that the sedative effect of all the articles enumerated above is primary. A French chemist, after analysing opium, and making a few experiments with the constituent-parts separately, supposes that he has discovered the cause why opium sometimes excites the system, and disorders the brain and nerves. One article he obtained (to which he has given the name of *narcotine*) he ascertained to possess the power of disordering the nervous system, and this he therefore supposes to prevent the anodyne operation of another constituent, which he denominates *morphine*. Whether this be the case or not I cannot say from experience, but certainly it is a fact that morphine, and particularly the acetate of it, is more certain in its action as an anodyne than opium; and the sleep it produces is also more natural and refreshing, nor is it followed by the nervous affection of the head, &c., which generally succeeds a dose of opium. The effects of the different anodynes are noticed under the heads of ANTISPASMODICS and NERVINES. Some of the class of anodynes seem to act more powerfully on the nerves of some parts of the body than on others. Opium particularly evinces its anodyne effects on the head, lungs, stomach, intestines, bladder, and extremities, but it has no effect on irregular action of the heart; and although it will allay pain in the stomach and intestines, it generally increases the contractile power of the muscular fibres of the intestines, and diminishes that of the heart. The inspissated white juice of the wild or of the garden lettuce allays morbid irritation and inflammation in the membrane lining the windpipe and bronchial vessels, and reduces the power of the heart. Meadow-saffron acts as a powerful sedative on the nerves of the uterus, and on the extreme ramifications of nerves in the extremities, the seat of gouty inflammation, and of the membranes of joints and bones. The cicuta acts on the nerves of secreting glands and on secreting membranes. The henbane is a general anodyne, allaying irritation or nervous excitement in the brain itself, and at the same time increasing the action of the muscular fibres of the intestines. Tobacco and stramonium diminish the irritability of the respiratory muscles, but disorder the nerves of the stomach. The prussic acid is a general anodyne, but has no effect on the muscular fibres of the intestines, either in increasing or diminishing

the peristaltic motion. The fox-glove allays the irritability of the heart, and increases the action of the absorbent system, but does not possess the power of allaying pain, either when taken internally or when applied externally. Hence all the anodynes have their peculiar advantages, which may be promoted by such remedies as the state of the general health or the temperament of the body may indicate.

In cases of acute inflammation, an anodyne very seldom succeeds till the vessels have been unloaded by abstraction of blood. In inflammation, the nerves of the part are more affected than the blood-vessels; and after the latter are unloaded by scarification or leeches, or by general bleeding, the next object is to reduce the morbid excitement of the nerves, by the use of an anodyne, and by a derivative, as a blister, rubefacient, &c.—(*See* DERIVATIVES.) In cases of inflammatory fever, opium or laudanum will often increase the excitement of the nervous system, if the blood-vessels are overloaded, and the skin be hot and dry. In the latter case, the addition of a sudorific, as ipecacuanha powder, antimonial wine, or Mindererus's spirit, generally succeeds in promoting its quieting effect. A combination of the henbane and colchicum in such cases generally succeeds better than opium, and at the same time has the important advantage of subduing irritability, and acting gently on the bowels.

The opiate medicines, by which I mean the preparations of poppies, and those vegetable substances which approach in their medicinal and chemical properties nearest to opium, may be introduced into the system by external friction, or by means of warm water or vapour, through the medium of the skin, and by inhalation of vapour, impregnated with their anodyne property, so as to quiet the whole nervous system, and even to subdue deep-seated pain. An eminent surgeon of Manchester was in the habit of ordering external friction with hog's lard, well mixed with opium, in cases of internal pain or spasms, either in the chest, abdomen, or lower extremities. The ointment of morphine (morphine mixed with hog's lard) and the ointment of belladonna (*see* UNGUENT, fol. BELLADONNÆ, in the New Medico-Chirurgical Pharmacopœia,) have been used for this purpose, and the latter, with an addition of the white calx of mercury, has proved very beneficial in cases of inflamed glands, and in true scirrhous tumours. It is a curious fact, that articles which invigorate the absorbent vessels, when topically applied, act more efficaciously when combined with articles that diminish the nervous energy. Anodyne vapour, as that of the decoction of poppy heads or opium, enters the system in such quantity as to disturb the head, and in this manner the vapour impregnated with the anodyne property of the hop, and even the air with its volatile parts, will succeed in

producing sleep, or in allaying general nervous excitement, after the same articles taken into the stomach had produced a contrary effect. The inhalation of vapour impregnated with the prussic acid has instantaneously terminated life. The opiates, as morphine, henbane, and belladonna are also topically employed in cases of painful or irritative ulcerations, or morbid excitement of nerves in the rectum, bladder, prostate gland, or uterus, either combined with hog's lard or oil, and also the extracts formed into a mass, termed a suppository.—(*See* SUPPOSITORIES.) The addition of laudanum, or an aqueous solution of opium to a mucilaginous clyster, forms a very efficacious palliative in cases of obstinate dysentery, tenesmus, spasms, and inflammation of the intestines, and in this manner laudanum or morphine sometimes succeeds in procuring sleep, and in allaying spasms in the chest, after the exhibition of it by the mouth had failed. Sometimes a combination of the opiates will succeed in producing sleep, after the failure of each when separately administered. The addition of the extract of henbane to opium generally promotes its anodyne effect, and the sleep thus procured is more refreshing, and not followed by disorder of the head. It has also the effect of counteracting the constipating effects of opium on the bowels. (*See* LAUDANUM, ACETATE of MORPHINE, COLCHICUM SEED WINE, CAMPHOR, PAREGORIC ELIXIR, LETTUCE LOZENGE, and BUCHU LEAVES.)

SIALAGOGUES.—A class of medicines which increases the secretion of saliva. Of this class there are two divisions, viz. *internal* and *topical*. The topical are those which stimulate the salivary glands when masticated, or applied immediately to them, or act by imparting a peculiar stimulating property to the saliva in the mouth, as the root of the pellitory of Spain, horse-radish root, mezereon root, tobacco, capsicum, electric sparks, &c. Of the internal remedies which act through the medium of the circulation or some continuous action (for worms in the alimentary canal often occasion an excessive secretion of saliva), mercury and iodine are the chief, if not the only ones. The increase of saliva by means of the topical application of certain stimulants, which particularly act on the salivary glands, often allays tooth-ache, by unloading the blood-vessels, and they probably act on the principle of counter-irritation, or as a derivative. They also prove beneficial in cases of deafness, from obstruction in the Eustachian tube, or debility of the auditory nerves, in relaxation of the soft palate. Increase of the secretion of saliva by means of the internal use of mercury or iodine is not, in my opinion, beneficial in any disease; but, on the contrary, the feverish or excited state of the system, which uniformly attends it, aggravates many complaints, and frequently brings constitutional diseases into

action, as pulmonary consumption, white swelling, &c., which might have remained dormant for life. Even in cases of syphilis, salivation is not necessary to destroy or expel the poison: a tenderness of the gum, kept up for a few weeks, with attention to the general health, proving much more efficacious than even repeated salivation. On nervous subjects, particularly those that are maniacally disposed, the fever attendant on salivation is very apt to disorder the brain, and produce mental aberration. The excessive secretion of saliva by iodine is also attended with fever, and the saliva emits the same kind of odour as during mercurial salivation, and also, like mercurial salivation, aggravates scrofula rather than corrects it. (*See* PREPARED CALOMEL, IODINE, SCROFULA, BILIOUS COMPLAINTS, &c.)

SOPORIFICS. — Medicines which produce sleep. (*See* SEDATIVES.)

STERNUTATORIES. — (*See* ERRHINES.)

STIMULANTS. — Articles which increase the action of the parts to which they are applied, or through the medium of the circulation; or by sympathy, or a peculiar contiguous or continuous action, invigorate remote organs, or the whole system. There are three kinds of stimulants which should be particularly distinguished; viz.

1. *Tonic stimulants*, which increase the cohesion of soft parts, or the contractile power of muscular and membraneous fibres. — (*See* ASTRINGENTS and TONICS.)

2. *Irritant stimulants*, which act chiefly in exciting a part by a chemical power, *i. e.* by producing an effect approximating inflammatory action, as the essential oils of cinnamon, cloves, nutmegs, &c., mustard seed, cantharides, euphorbium, ammonia, &c. — (*See* RUBEFACIENTS, AROMATICS, IRRITANTS, &c.)

3. *The diffusible stimulants*, as ammonia, caloric, electricity, galvanism, &c.

The class of stimulants is very numerous, and even embraces articles which possess opposite properties; indeed, if we attend to the explanation of the manner in which the various remedial articles produce their effects on different parts of the body, we should term all the medicinal agents, both external and internal, *stimulants*. The emetics excite vomiting, by *stimulating* the nerves and muscular fibres of the stomach; the aromatics prevent the operation of an emetic, or allay nausea by *stimulating* the same parts; one article excites spasms, by *stimulating* the muscular fibres, and another article allays spasms by *stimulating* the same fibres; one article excites inflammation by *stimulating* the nerves and blood-vessels, and another allays or disperses inflammation by *stimulating* the same parts; one article increases the secretion of urine, by *stimulating* the kidneys, and the same

extract of jalap, and ginger powder.—(*See* CATHARTICS.) If the kidneys should also be sluggish, the addition of an aromatic diuretic should accompany a tonic stomachic to establish a healthy sympathy with the stomach, as the tincture or spirit of the buchu leaves, or spirit of juniper. In the leucophlegmatic habit, the preparations of iron, as the aromatic alcaline solution of iron, the carbonate of iron with nutmeg, the tincture of muriate of iron with the compound tincture of cinnamon, are excellent tonic stomachics. In cases of indigestion from debility, the saline medicines, the bitters that are free, or nearly so, from *the astringent principle*, the prussic acid, the fixed air (disengaged from soda-water, or carbonate of soda,) or the saline draught in a state of effervescence, or the anodynes, prove injurious by increasing the cause of indigestion, viz. relaxation of the muscular coats of the stomach and deficiency of nervous energy. In cases of indigestion from morbid irritation or excitement of the nerves of the stomach, a very common variety of the complaint, the aromatic stomachics prove injurious. The remedies in such cases are those which allay morbid excitement, such as the saline mixture in a state of effervescence, bitters free from, or containing a very small proportion of the astringent principle, as quassia, columbo, and the mild anodynes, as the henbane, the hop, &c. An acid generally predominating in this state of stomach, the carbonate of soda, is a very useful medicine.—(*See* ANTACIDS and PREPARED NATRON.) The blue pill is also an useful auxiliary; but as it is very apt to disorder the bowels in this variety of indigestion, it should be administered with a small proportion of morphine, or with the carbonate of lime. This variety is generally attended with a degree of morbid sensibility of the whole nervous system.—(*See* INDIGESTION, NERVINES, and NERVOUS TEMPERAMENT.)

I have noticed these two prevailing varieties of indigestion to show, that the term *stomachic* is merely relative; the salutary effects of the articles so denominated being dependent on certain conditions of the stomach, which are often opposite, *i. e. increased* excitement and *diminished* excitement. The debility may again be indirect. In people from thirty to forty years of age it is often the consequence of an overloaded state of the circulation (compressing the brain and oppressing the lungs), in which case abstraction of blood and evacuants will prove stomachic. The state of morbid excitement of the stomach may again be sympathetic of some remote disorder or disease; in which case its treatment must, of course, be regulated by the nature of the primary affection. The stomach often becomes sluggish, in consequence of the lower intestines being overloaded with fæces, in which case a laxative lavement will act beneficially.

on the stomach by calling its powers into action. Bitters are commonly termed stomachics, and their effects in promoting digestion are attributed to a *tonic* quality. When not combined with the astringent principle, I have uniformly found them to act as sedatives, and to prove beneficial only in the variety of indigestion which arises from *increased* excitement. In cases arising from *diminished* excitement, they evidently produce no beneficial effect, and their continued use clearly debilitates the whole frame of an elderly or leucophlegmatic subject. — (*See* TONICS, NERVOUS COMPLAINTS, INDIGESTION, and the LEUCOPHLEGMATIC TEMPERAMENT.)

" TONICS.—A class of medicines which invigorates the muscular system, by increasing the powers inherent in it, *viz.* its contractile power, termed irritability, or *vis insita*, and the power which renders muscles more susceptible of nervous influence, denominated the *vis nervosa*. Certain bitters, as calumbo, gentian, extract of camomile flowers, wormwood, quassia, are denominated *tonics* by most writers on the materia medica, but no article, in my opinion, is entitled to the denomination that does not contain a proper proportion of the astringent principle — the agent which produces a *tonic* effect on muscular fibres, and the other soft parts of the body. Bitters without this peculiar principle are, in fact, antitonics or sedatives, and when they prove successful in cases of indigestion, it is in the variety only that arises from morbid excitement. In weakly and elderly subjects, especially of a leucophlegmatic temperament, they uniformly increase the debility of the stomach, and consequently of the whole system. — (*See* ASTRINGENTS, STIMULANTS, and ANTISPASMODICS.) Arsenic is generally considered a powerful tonic, because it more speedily cures ague than any other medicine; and the disease being termed one of debility, the remedy that cures it, is of course deemed a *tonic*. Ague as often occurs in the robust as in the debilitated, and probably it is a certain condition of the abdominal viscera, which has nothing to do with debility, that renders the system susceptible of the action of the cause of the disease. Arsenic may probably act by rousing the superintending power of the system, which, by calling the different powers into action to expel it or render it inoffensive, counteracts the influence of the marsh effluvium, or expels it from the body with the poisonous remedy. If arsenic cured the disease by a *tonic* effect, it would improve the state of the stomach and general health, but instead of this being the case it uniformly disorders it, and often reduces the vital energies. In cases of relaxation or debility of the rectum, allowing of a portion to protrude, so that it becomes pinched by the action of the sphincter muscles, or in cases where

the sphincter muscle is relaxed so as to produce the disease termed *prolapsus ani*, the topical application of a tonic is necessary; as the tonic or astringent lavement. This lavement is also of great service, administered daily in cases of debility in the neighbouring parts, and to prevent miscarriage in delicate females of relaxed or weak fibres.

There are *nervous* as well as muscular tonics, *viz.* those which act primarily on the nervous system, probably by invigorating the ganglions of the abdomen; of this class the hibuscus abelmoschus, and the buchu leaves, are the most efficacious. The nervous tonics should be administered with such remedies as the state of stomach, bowels, and general health may indicate, in order to expedite their beneficial effects, and render them permanent. — (*See* NERVINES, HIBISCUS ABELMOSCHUS, NERVOUS DISEASES, and the NERVOUS TEMPERAMENT.)

The tonic medicines of the present day are, rhatany root, Peruvian bark, cascarilla, saline preparations of iron and zinc, the efficacy of which is increased by aromatics, as cloves, cinnamon, cardamom seeds, &c. The blue pill, by rendering the parts more susceptible of their action, by removing glandular obstructions, and by correcting the secretion of bile, &c. &c., will render the effects of a tonic more permanent.

VERMIFUGES. — (*See* ANTHELMINTICS.)

VESICATORIES, or EPISPASTICS.—Substances which, applied to the skin, are capable of exciting inflammatory action, and of producing a discharge of serum under the cuticle, so as to form a bladder, or what is termed a blister.

When it was the fashion to attribute diseases to a morbid condition of the fluids or humours of the body, this class of remedies were in great esteem, chiefly as affording an outlet for morbid acrimonious and other humours, and the discharge of a blister, as well as of setons and issues, was always considered morbid, and consequently highly beneficial in purifying the blood and juices.

At the present day the discharge of a blister is considered of no importance; the beneficial effects which, in cases of internal inflammation, are often immediate, being attributed solely to its action as a derivative, and this is as effectual when it only inflames the skin as when it produces a blister, and in cases of inflammation in the chest, more so when it occasions strangury. When a blister is kept open by the savin ointment, or any other stimulating article, the discharge becomes purulent, which, when copious, has, no doubt, the effect of quieting the system, and of reducing inflammation in a joint, or any other part. Blisters act most efficaciously in cases of internal inflammation, as of the pleura, lungs, liver, stomach, &c. &c., after an abstraction of

blood, or when the inflammation is more nervous than vascular. Inflammation may be considered a disease in which the nerves and arteries are chiefly engaged, and after the arteries have been unloaded it partakes more of nervous excitement than vascular action, and in that case a blister or a rubefacient, by occasioning a determination of nervous energy to another part of the body, often succeeds in curing the disease. — (*See* effects of vomiting on inflammation after abstraction of blood under the head of EMETICS, and of purging under the head of CATHARTICS.)

In cases of inflammation of the brain or its membranes, the application of a blister to the scalp (a common practice) has been found to aggravate the disease, even after copious bleeding, probably by increasing the determination of blood to the head. It appears to be too near the seat of the disease to act beneficially as a derivative. The application of a cold lotion and a blister, or mustard poultices, to the legs, is more judicious practice. When bleeding has not preceded the application of a blister in cases of inflammation of an internal part in a nervous subject, it has aggravated the inflammatory symptoms, apparently by increasing the feverish state of the body. In cases of chronic cough, attended with great difficulty of expectoration from debility, a blister is frequently applied over the chest, with the view of stimulating the muscles concerned in effecting the expulsion of mucus from the air-vessels.

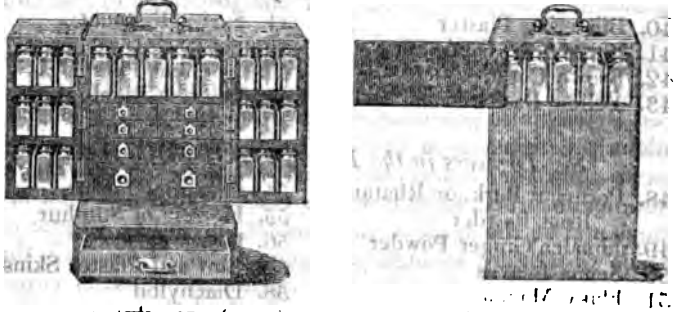
Blisters are also employed in cases of palsy and muscular debility as stimulants. They are also sometimes applied to dropsical swellings of the legs, &c., for the discharge of the effused serum; but when the vital powers are considerably reduced, the blistered parts are very apt to mortify. In such cases small punctures by a lancet or by needles (acupuncturation) is preferred by cautious practitioners. Blisters are not employed by prudent practitioners in cases of inflammation of the kidneys, prostate gland, or bladder, because a portion of the cantharides is sometimes absorbed, so as to excite considerable irritation in the kidneys and at the neck of the bladder, often to a degree as to produce distressing strangury. Some theorists contend, that a blister has never this effect when inflammation exists either in the kidneys, bladder, or urethra. As the inflammatory excitement of the skin produced by the application of strong liquor of ammonia, the mustard seed poultice, or dilute muriate of antimony, will have the same effect as a blister, a prudent practitioner would employ such rubefacients rather than run the risk of increasing so serious and distressing a malady. When it is desirable to ensure the operation of a blister, or to expedite its action, the part should be previously stimulated by

the liquor of ammonia. The euphorbium plaster is sometimes used for the purpose of blistering, but it is more tedious and uncertain in its operation than the plaster of cantharides, commonly called blistering plaster. (*See* BLISTERING PLASTER.)

Directions for the Use of the Articles necessary to be kept for Domestic and Charitable Purposes.

Having explained the manner in which the various classes of drugs operate on the human body, both in a healthy and in a diseased condition, so far as the present state of the science will admit, I shall proceed to give directions for the exhibition and application of the articles which are generally employed in private practice, and which, as I have already observed, should be kept by the leading family in every parish that does not admit of immediate recourse to medical aid. In performing this very important part of domestic medicine, I shall take the articles according to their arrangement in the Family Medicine Chest, which I consider to be the most convenient that has been constructed. Of this chest, to which I have given the name of "The Family Dispensary," * the following is a representation:—

Front View. **Back View.**



The Five Bottles in the Back Part, for

1. Magnesia
2. Epsom Salt
3. Castor Oil
4. Tincture of Rhubarb
5. Cajeput Liniment, or Opodeldoc

* This chest, of different sizes, and others on different plans, with the bottles, drawers, &c., labelled with numerical references to this work, may be obtained, furnished with drugs of the choicest quality, on the lowest terms, at the Medical Hall, 170, Piccadilly, London.

The Five Bottles in the Front, for

6. Comp. Tinct. of Bark, or
7. Tinct. Ginger and Camomile
8. Com. Tinct. of Senna
9. Com. Spirit of Lavender
10. Mindererus's Spirit
11. Paregoric Elixir

Nine Bottles in the Right Wing, for

12. Spirit of Hartshorn
13. Spirit of Sal Volatile
14. Vitriolic Æther
15. Sweet Spirit of Nitre
16. Antimonial Wine
17. Tincture of Myrrh
18. Dilute Sulphuric Acid
19. Tincture of Assafœtida
20. Volatile Tinct. of Guaiac Gum

Nine Bottles in the Left Wing, for

21. Salt of Wormwood
22. Crystall. Lemon Acid
23. Ipecacuan Powder
24. Essential Salt of Bark, or
25. Salt of Steel
26. Rhubarb Powder
27. Jalap Powder
28. Camphorated Powder
29. Com. Cretaceous Powder
30. Extract of Lead

Nine small Bottles in a Drawer, for

31. Liquid Laudanum
32. Essence of Peppermint
33. Essence of Cinnamon
34. Prepared Calomel
35. Emetic Tartar
36. Basilic Powder
37. Antimonial Powder
38. Camph. Acetic Acid
39. Volatile Smelling Salts

Six Pots in a Drawer, for

40. Blistering Plaster
41. Spermaceti Ointment
42. Brown Cerate
43. Yellow Basilicon
44. Savin Ointment
45. Squill Pill
46. Aperient Pills
47. Lenitive Electuary

Six Drawers in the Front, with Partitions, for

48. Peruvian Bark, or Rhatany Root Powder
49. Jamaica Ginger Powder
50. Senna Leaves
51. Flaky Manna
52. Gum Arabic Powder
53. Purified Nitre Ditto
54. Cream of Tartar
55. Flowers of Sulphur
56. Court Plaster
57. Lint and Plaster Skins
58. Diachylon
59. Ditto with Gum
60. Prepared Natron

Two large Drawers in the Front, for

Pestle and Mortar
Graduated Ounce Measure
Ditto, Drop ditto
Scales and Weights
Spatula, Bolus Knife
Funnel and Tyle
A Lavement Bag, with Pipe

EXPLANATION OF WEIGHTS AND MEASURES.

20 Grains	make	1 Scruple	(℈)
3 Scruples	- - - -	1 Drachm	(ʒ)
8 Drachms	- - - -	1 Ounce	(℥)
12 Ounces	- - - -	1 Pound	(℔)

The small round impressions on the thin weights stand for so many grains.

The graduated measure is marked from half a drachm to an ounce, and the drop measure from one to thirty drops.

By a tea-spoonful, is meant one drachm; a table-spoonful, half an ounce; a wine-glassful, two ounces; and a tea-cupful, three ounces, or a quarter of a pint. A drop is generally considered to weigh a grain, so that sixty drops are reckoned equal to a drachm, or tea-spoonful; but in all cases, the smallest doses should be measured, as drops greatly differ both in size and weight. The size of a drop varying according to the consistency or specific gravity of the liquid, the quantity in the bottle, and the thickness of the edge from which it is dropped, and the most active part of ethereal or volatile articles evaporating during the time of dropping, the smallest dose of a liquid should be measured, and for this purpose, the drachm is divided into sixty parts, which are termed minims; but as many drops adhere to the measure, allowance should be made for them, or the measure should be rinced out with the vehicle, or the articles with which the minims are to be mixed, so that no portion may be lost. Since this regulation, the minim, commonly called the drop measure, is generally used. Many chemists and apothecaries in compounding prescriptions, drop the articles, instead of using the measure, when minims are ordered, and as the drop of different articles considerably varies in quantity, (of some fifty drops making sixty minims or one drachm, and of others one hundred and twenty drops), the medicines so dispensed, particularly when the article is of an active or powerful nature, such as acetate of morphine, prussic acid, the arsenical solution, &c., have been productive of serious mischief. Some chemists and apothecaries suppose that one drop of any liquid is equal to a minim, others consider a drop and half to be a minim, and others, for every minim ordered, add two drops. It is common for physicians to order two minims of an article, as oil of cloves, &c., when, if the quantity of five minims be measured, the whole will adhere to the glass; and when the article is an oil, it often happens that the ingredients with which it is to be mixed will not dissolve it, and consequently it cannot be got out of the measure. In such case, the compounder is really under the necessity of making use of drops, but he should ascertain how many drops of the article will make

the number of minims ordered. Spoons likewise vary too much in size to be used as measures for the exhibition of potent medicines.

The following characters are in general use:—
j one, ij two—as ʒj one drachm, ʒij two drachms.
gr: granum or grain.
m: minimum or minim.
℞. (Recipe) Take.
a aa or ana, of each.
ss. the half—as ℥ ss. half an ounce.
Cong. (Congius) a gallon.
Cochl. (Cochleare) a spoonful.

The doses specified throughout this work are for adults, which must be increased or diminished according to the strength and habit of the patient, and the age, by the Scale given under the head of Catalogue of Drugs, in the Appendix.

It is customary to repeat the dose of an aperient medicine about every four hours till it operates, or to employ a lavement, which, if the costiveness prove obstinate, and particularly when attended with pain in the bowels, is preferable to a repetition of strong cathartic medicines.

Drugs are *retailed* in the quantities above a drachm, by avoirdupois or grocers' weights, and from a drachm, lower, by the troy or apothecaries' weight. In the compounding of medicines, the troy weight is always used. The avoirdupois or the grocers' weights differ very much from the troy or apothecaries', and in consequence of grocers dealing in drugs, mistakes are often made in the *quantity* of an article. The grocers' pound contains sixteen ounces, and the ounce sixteen drachms. The pound also varies, for the grocers' pound contains 7000 grains, and the apothecaries' only 5760; hence the pound of the latter is less than that of the former by 1240 grains, and the apothecaries' ounce, on the other hand, is greater than the grocers'—the former containing 480 grains, and the latter 437½ grains. The measure of liquids also differs, one being used for beer and the other for wine. In medicine the latter is employed.

No. I. CALCINED MAGNESIA. — This article, by neutralizing the acid formed in the stomach, speedily relieves the painful sensation termed *heart-burn*, and with it forms an aperient medicine, which operates gently on the bowels. The dose is from a tea-spoonful to a dessert-spoonful. It operates most pleasantly when administered with an aromatic, as peppermint-water, or with two grains of ginger-powder or grated nutmeg in spring water.

The purgative effects of calcined magnesia *entirely* depending on its meeting with an acid in the stomach, it frequently happens that a small dose will operate more on the bowels than a larger one, in consequence of not meeting with a sufficient quantity of an acid to dissolve it; and as it scarcely produces any sensible effect if an acid does not exist in the stomach, no reliance can be placed on it as a purgative. When, therefore, a full dose of magnesia does not act on the intestines, the probability is that there is not a sufficient quantity of acid present to dissolve it, in which case the patient should take a dessert-spoonful of lemon-juice to promote its aperient operation.

When acidity is the consequence of increased excitement or a feverish state of the digestive organs, which is generally the case in young subjects, and particularly in nervous, inflammatory, or gouty habits, the beneficial effects of magnesia will be temporary, unless it be accompanied with a quieting or nervous stomachic medicine, as calumbo, fumitory, &c. (See STOMACHICS, p. 45, and INDIGESTION.) When the complaint is obstinate, or of long standing, the prepared natron will prove more efficacious than magnesia, and being perfectly soluble in water, is also more pleasant to take. (See PREPARED NATRON, No. 60, and LIME WATER.)

For correcting acidity in the stomach of children, attended with *costiveness*, magnesia, either alone or combined with a little rhubarb powder, is an excellent remedy; but when attended with *looseness*, or what nurses term *griping stools*, the compound cretaceous powder, No. 29., will prove equally efficacious in neutralizing the acidity, and at the same time will restrain the violence of the purging. If the evacuations be excessive, and attended with griping pains, a drop or two of laudanum should be added to each dose; but if not, lime water will answer best with a mild aromatic, as the absorbent mixture. (See LOOSENESS of CHILDREN, and COMPOUND CRETACEOUS POWDER.)

Calcined magnesia is generally preferred, on account of no fixed air being disengaged in the stomach or intestines, on uniting with an acid, which from the common magnesia (carbonate of magnesia) is extricated in considerable quantity. Fixed air is, however, so very grateful to the stomach, as often to remove nausea, and, so far from increasing flatulency in the *intestines*, will often correct and relieve it, the two gases being very different in their nature; but, when the patient is much oppressed with air in the *stomach*, the calcined magnesia should be employed. (*See* FLATULENCY.)

The calcined magnesia, in the quantity of a tea-spoonful twice a-day, has been lately much recommended by Mr. Brande and others, as a remedy for the *red* gravel, and for correcting the gouty habit. A few cases of its accumulating in the intestines, to a considerable degree, have been published in the eleventh number of the Monthly Gazette of Health. This effect is to be attributed to its not meeting with a sufficient quantity of acid in the stomach to dissolve it. It has also been administered, in the dose of twenty grains twice a-day, by Dr. Kinglake and other eminent practitioners, with great success, in confirmed cases of diabetes. If that quantity should produce more than two fecal evacuations daily, it may be given in a wine-glassful of lime-water.

The common magnesia being nearly neutralized by carbonic acid gas, acts gently as an aperient when it does not meet with an acid in the stomach, and therefore, in many cases, is preferable to the calcined. It has also the advantage over the calcined, of mixing with the contents of the intestines, and, consequently, of not collecting in them. A bicarbonate of magnesia has lately been introduced into practice by Mr. Howard, which acts with more certainty and more pleasantly, as an aperient, than either the calcined or common magnesia: and the dose being less bulky, it does not, like them, adhere to the palate and gullet. This preparation is superior to Henry's magnesia, and considerably cheaper, and may be more readily administered to children. The magnesia is frequently adulterated with chalk, which may be detected by putting a dessert-spoonful of the suspected magnesia into an ounce of the diluted vitriolic acid, No. 18. If the magnesia be *entirely* dissolved, and the solution remain *clear*, it may be pronounced pure, but not otherwise. If the experiment be made with the common magnesia, there will be a considerable effervescence; but, with the calcined, there should be none.

The new name for calcined magnesia is *magnesia*, and for common magnesia *carbonate of magnesia*.

No. 2. EPSOM SALT. This salt operates more effectually and pleasantly on the bowels than any of the neutral salts,

rarely occasioning griping pains or sickness. Six drachms of this salt are equal to an ounce of the Rochelle. It may be taken, dissolved either in whey or common water, with the former, in the proportion of half an ounce to a quarter of a pint, it is not an unpleasant draught.

In elderly subjects, or in persons of a leucophlegmatic temperament, or who occasionally suffer from determination of blood to the head, or from indigestion arising from debility, the Epsom salt in any form, as well as the other saline aperients, are improper, and, by diminishing the temperature of the abdominal viscera, have frequently produced such a determination of blood to the brain as to occasion considerable giddiness, and even apoplexy. — (*See* CATHARTICS, p. 19.) — The late Dr. Baillie was very partial to a solution of Epsom salt in infusion of red roses, in cases of indigestion, attended with costiveness, of young or feverish subjects, and in the constitutional constipation of young subjects; and Sir Henry Halford to a solution of it in infusion of camomile flowers in the same complaints. — (*See* STOMACHIC MIXTURES, and STOMACHICS, p. 47.) — The solution of an ounce of the Epsom salt in a quart of pure soft water, in the quantity of a tea-cupful, every or every other morning, is a good remedy for inflammatory cutaneous eruptions and leprous affections of the skin, commonly termed *land-scurvy*, and for inflammatory piles, habitual costiveness, indigestion, flatulency, and many constitutional and local affections in young subjects, or persons of an inflammatory habit. By the addition of two or three grains of salt of steel to the above solution, a *chalybeate aperient water* is formed, which has proved serviceable in some cases of green sickness, worms, indigestion, flatulency, &c.; and for the stomach complaints, affecting the lower class of people, it affords a very cheap and efficacious remedy. Should it prove too cold for the stomach, it may be rendered tepid, or a little ginger-powder may be added to it. From a wine-glass to a tea-cupful may be taken every or every other morning, according to its aperient effects on the bowels.

By dissolving half a drachm of the sulphuret of soda, and an ounce of Glauber's salt, in a quart of pure soft water, a *sulphureous aperient water* is made, not inferior to that of the sulphureous spa at Harrowgate; and, taken to the extent of a wine-glassful once or twice a-day, has proved very beneficial in acute rheumatism, inflammatory cutaneous affections, and piles.

A saline powder has been much advertised under the name of "Cheltenham Salt, or Chalybeate Aperient," which is not made from the Cheltenham water, and certainly possesses no advantage whatever over Glauber's salt, and, in many respects, is inferior to the Epsom salt. The salt made at Cheltenham by some of the

proprietors of wells does not contain all the medicinal virtues of the water, in consequence of the salts it contains being allowed to crystallize separately. Indeed, the article sold under the name of the "True Cheltenham Salt, or Chalybeate Aperient," is nothing more than common Glauber's salt.

The demand for the Epsom salt having greatly increased within the last seven yeers, wholesale dealers in the article have been induced to adulterate it with the common culinary salt and Glauber's salt. The true Epsom salt may be distinguished by becoming more dry on exposure to the atmosphere, while the adulterated is rendered more moist by it.

Many fatal accidents have lately occurred, in consequence of the oxalic acid having been taken by mistake for Epsom salt, through the great similarity of the crystals. They may be easily distinguished by the taste, the oxalic acid being very acid, and the Epsom salt only saltish. On adding a little chalk, or carbonate of soda, or carbonate of potass, or salt of wormwood, to a solution of the oxalic acid, an effervescence will take place, whilst such addition to a solution of Epsom salt will have no such effect.

The new name for the Epsom salt is *sulphate of magnesia* (*sulphas magnesiæ*).

No. 3. CASTOR OIL.—The oil of the castor seeds (*palma christi*), in the quantity of one to two large table-spoonsful, is a valuable purgative medicine in cases of spasmodic colic, habitual costiveness, and piles. It may be taken conveniently with a little peppermint-water (swallowed as it floats on the top). The addition of a table-spoonful of the compound tincture of senna will render it less nauseous, and, at the same time, quicken its operation. If this mode of exhibiting it be objected to by the patient, an emulsion may be made by rubbing the castor oil with about the fourth part of the yolk of an egg, in a mortar; and, when well blended, by adding, very *gradually*, an ounce of peppermint-water, and, lastly, some sugar.

Castor oil is an aperient particularly applicable to inflammatory affections of the membrane of the windpipe, intestines, kidneys, bladder, prostate gland, and rectum. In cases of indigestion from nervous excitement, and of debility, it is very apt to occasion nausea that remains for many days.

The oil expressed from the castor seeds in this country, sold under the name of cold-drawn castor oil, is less nauseous than that prepared in the East or West Indies. It may be known by its pale and transparent appearance.

Since the publication of the last edition of this work, the Croton oil has been much employed in cases of *obstinate* costiveness in the place of castor oil, or to quicken its action in cases of obstinate

constipation in such cases of emergency which require the speedy operation of a purgative. The dose of the Croton oil is from one to two drops. — (*See* CROTON OIL.)

No. 4. TINCTURE OF RHUBARB. — This tincture is strongly impregnated with the virtues of rhubarb root, and Cardamom seeds. In the quantity of half an ounce to an ounce, diluted with an equal quantity of water, it affords an excellent *warm* purgative draught for colicky or flatulent affections of the bowels. In weakness and laxity of the stomach and intestines, attended with a sluggish state of the viscera (frequent causes of indigestion and flatulence in elderly subjects), this tincture may be advantageously taken, in conjunction with the essential salt of bark, as directed for the stomachic mixture, No. 61.; and, when accompanied with heart-burn or vomiting of acid matter, the prepared natron, No. 60., will prove an useful addition, particularly if the subject be of a gouty habit. On account of the stimulating nature of the spirit and cardamom seeds, it should not be *indiscriminately* administered in every case of pain in the bowels, or at least in such quantity as to operate as a purgative, but employed more as a *warm* stomachic medicine, in the quantity of two or three tea-spoonsful in a little mint-water, to which a little rhubarb or jalap powder may be added, when it is necessary to empty the bowels.

With Mr. Abernethy, a mixture of equal parts of tincture of rhubarb and compound tincture of senna, in the dose of a table-spoonful, in about two table-spoonsful of water, every or every other morning, is a very favourite warm stomachic aperient, particularly during the use of the blue pill, in cases of indigestion, or sluggish state of the alimentary canal, or of the liver, in elderly or debilitated subjects.

No. 5. CAJEPUT LINIMENT. — This article is the soap liniment, commonly called opodeldoc, with an addition of the cajeput oil. It is a very efficacious topical remedy for rheumatism, paralytic affections, sprains, bruises, chilblains, and for dispersing indolent tumours. It should in chronic cases be well rubbed over the affected part, by means of flannel, as the friction considerably promotes its efficacy, and, in some cases of nervous or muscular debility, is of greater consequence than the liniment. Fomentations, or the warm vapour or the warm-water bath, and also the internal use of the blue pill, render a part more susceptible of the action of a stimulating liniment.

In cases of bruises or other accidents, when the part is inflamed, or the surface very tender, diluted Mindererus's spirit, No. 10., or lotion of extract of lead, No. 30., is preferable to this liniment, as the friction employed in its application may aggravate the mischief.

No. 6. COMPOUND TINCTURE OF BARK.—This tincture (impregnated with the virtues of the Peruvian bark, snake root, and the Seville orange peel), first introduced in practice by Dr. Huxham, may be taken to the extent of a dessert spoonful, with double the quantity of pure water, three times a-day, in cases of indigestion and general languor of the system, in elderly or debilitated subjects. If the patient be affected with flatulency or profuse perspiration, five or eight drops of the dilute sulphuric acid may be added to each dose: but if acidity prevail in the stomach, an addition of ten or twenty grains of the carbonate of soda, No. 60., may be substituted for the dilute sulphuric acid. In cases of indigestion of young or feverish subjects, particularly those who have injured their constitutions by indulgence in spirits or wine, or in savoury dishes, the alkaline tincture of fumitory is a more efficacious remedy than any preparation of the Peruvian bark.

A solution of the essential salt of bark in sherry or port wine, as directed No. 24., possesses the virtues of the bark in great perfection, and, at the same time, is exempt from the pernicious effects of the ardent spirit * with which the compound and simple tinctures of bark are made.

Before *cordial* stomachic medicines are employed, with the view to strengthen the system, it will be necessary to consider well whether the debility is the consequence of any inflammatory affection of the liver, the stomach, the lungs, or any part which the *cordial* quality of the medicine would aggravate.—(*See* STOMACHICS, p. 47. and TONICS, p. 49.) — A great objection to the compound tincture of bark is its constipating effect on the bowels, which may be obviated by taking it in an infusion of rhubarb. The new name for this tincture is *compound tincture of cinchona* (*tinctura cinchonæ composita*).

No. 7. TINCTURE OF GINGER AND CAMOMILE.—This tincture, containing the aromatic virtues of the ginger root, and the essential oil and bitter quality of the camomile flower, affords a most valuable stomachic medicine; and, in cases of indigestion, flatulency, laxity of the bowels, dropsy, and complaints arising from *debility* of the digestive organs, it has often succeeded after the Peruvian bark had failed.

From thirty to forty drops of this tincture may be taken two or three times a day, in half a wine-glass of water. In languid gouty habits, and in obstinate cases of indigestion arising from the too free use of spirituous liquors, attended with coldness in

* Many persons, no doubt, have to date their first propensity to dram-drinking to the too frequent use of spirituous tinctures, rashly prescribed for hysterical complaints, lowness of spirits, flatulency, &c. It is in cases of great languor that spirituous medicines are proper.

the extremities, or swellings of the legs, or when the person is far advanced in life, the dose may be increased to a tea-spoonful and upwards.

When indigestion is attended with much nausea and acidity, an emetic, or an active purgative, should precede the use of this and any other stomachic medicine; and if attended with costiveness, from five to ten grains of the alkaline extract of jalap (in two or three pills) may be taken every or every other night or forenoon, so as to produce one alvine evacuation daily.

When indigestion or weakness of the system is accompanied with looseness or increased irritability of the bowels, the aromatic tincture of the rhatany root is preferable to this tincture, and when attended with general disturbance of the nervous system, the tincture of the hibiscus abelmoschus will prove a very useful adjunct. — (*See* NERVINES, p. 37. and NERVOUS MIXTURE.)

No. 8. COMPOUND TINCTURE OF SENNA. — This tincture, containing the medicinal properties of senna leaves, jalap, and coriander seeds, is a very pleasant warm aperient medicine, in languid or gouty constitutions; and, in the quantity of a small wine-glassful, taken alone, or with a little warm water, generally affords relief in colicky and flatulent complaints of the bowels, and often succeeds better than tincture of rhubarb, or any other warm purgative medicine.

The tincture of senna, with a small proportion of treacle, is sold under the name of *Daffy's Elixir*. (*See* TINCTURE of RHUBARB.)

No. 9. COMPOUND SPIRIT OF LAVENDER. — This tincture, first sold under the name of Palsy Drops, is impregnated with the medicinal virtues of lavender and rosemary flowers, nutmeg, and cinnamon. It is a pleasant and efficacious cordial, and, in the dose of forty to eighty drops on a piece of sugar, or in a glass of water or wine, is deservedly much employed in cases of languor, weakness of the nerves, decay of age, lowness of spirits, and fainting fits. (*See* NERVOUS MIXTURE.)

The good effects of stimulating cordials of this class continue only for a short time, if not accompanied with such remedies as the state of the general health, particularly of the stomach, intestines, and circulation, may indicate, or with a *nervous tonic* which will brace the nervous system; as the tincture of the hibiscus abelmoschus. By apothecaries, it is chiefly employed to cover the ill-flavour of nauseous drugs, and to colour mixtures.

No. 10. MINDERERUS'S SPIRIT.—This saline medicine (made by neutralizing distilled vinegar with ammonia), taken to the extent of half an ounce, two or three times a-day, in a glass of mint-tea, promotes perspiration, allays fever, and abates thirst. In inflammatory fevers and acute rheumatism, or in cases where the object of practice is to quiet the system, and to increase

perspiration (which after much corporeal fatigue is highly beneficial), this is unquestionably a very valuable medicine, and more safe than Dover's powder, which, on failing to excite perspiration, always increases fever and disturbs the brain and nerves.

In cases where the immediate operation of a sudorific medicine is of importance, it would not be proper to trust to Mindererus's spirit alone, but to employ it with the view of keeping up the effects of a more active medicine, as the antimonial wine, No. 16.

In acute rheumatism, twenty trops of antimonial wine, No. 16., and ten of laudanum, No. 31., may be added to the night dose of Mindererus's Spirit, with advantage; or if an objection be made to laudanum, three table-spoonsful of camphorated julep may be employed in lieu of it and the mint-tea. (*See* SUDORIFIC MIXTURES.)

The new name for this medicine is *Solution of Acetate of Ammonia* (*Liquor Ammoniæ Acetatis*).

No. 11. PAREGORIC ELIXIR. — This elixir (a solution of opium, camphor, flowers of benzoin, and oil of anniseeds in proof spirit) in the dose of a tea-spoonful in a glass of water, two or three times a-day, powerfully allays the tickling sensation in the windpipe attendant on recent cough. In spasmodic asthma, and *chronic* difficulty of breathing, taken with the oxymel of squill, it gives very considerable relief, by facilitating expectoration, and allaying irritation of the lungs. (*See* ASTHMATIC MIXTURES.)

If the patient be of a full habit of body, or if the cough be attended with fever, or pain in the chest, this elixir is not a proper remedy; for, in either case, its stimulating ingredients may aggravate the affection of the lungs, and produce active inflammation, unless it should excite copious perspiration, an effect which seldom follows its use when the system is feverish or nervous, or the affection of the lungs is inflammatory.

Pleurisy and consumption of the lungs too frequently follow the injudicious exhibition of medicines of this kind, which are advertised under the imposing names of Balsam of Horehound, Balsam of Honey, &c. &c. In coughs of a doubtful nature it will therefore always be advisable to give paregoric elixir with a medicine that will occasion a determination to the skin, as Mindererus's Spirit, or two grains of ipecacuan powder. (*See* COUGH and LETTUCE LOZENGE.)

In cases of chronic cough of elderly people a mixture of equal parts of paregoric elixir and the oxymel of squills, taken in an infusion of horehound, is a very valuable remedy. It not only allays irritation, but promotes expectoration and increases the secretion of urine; effects of great importance to such invalids. If the paregoric elixir confines the bowels, a pill or two of the

alcaline extract of jalap should be taken every or every other night in order to keep the bowels in a regular state. (*See* ANTITUSSIC MIXTURE.)

Half an ounce of this elixir contains a grain of opium.

In the last Pharmacopœia, the oil of anniseeds is omitted in the recipe for this elixir, which, in chronic cough and asthmatic difficulty of breathing, is a valuable ingredient.

The new name of this elixir is *Compound Tincture of Camphor* (*Tinct. Camphoræ Comp.*)

No. 12. SPIRIT OF HARTSHORN.—This volatile liquor, taken from twenty to thirty drops in a glass of water, often affords immediate relief in cases of lowness of spirits, fainting, and hysteric fits. It may, likewise, in such cases, be rubbed over the temples, and applied to the nostrils. The same quantity of the compound spirit of lavender will render it more grateful to the palate and acceptable to the stomach, and, at the same time, promote its cordial effects.

Equal parts of spirit of hartshorn and olive-oil form the volatile liniment, which is much employed as an external remedy for paralytic numbness, chronic rheumatism, diseased joints, and inflammatory sore-throat; but it is not so efficacious as the cajeput liniment, or the camphorated volatile liniment.

Spirit of Hartshorn has lately been recommended by an Italian physician, in the dose of a large tea-spoonful to a dessert spoonful in a glass of water, to counteract the intoxicating effect of vinous liquors during the drunken fit.

It is also a popular remedy, in the dose of thirty drops two or three times a day in a glass of water, for attenuating the blood, in cases of difficulty of breathing and venous plethora of elderly people attended with giddiness. (*See* ATTENUANTS, p. 16.)

The new name for Spirit of Hartshorn is *Volatile Liquor of Hartshorn* (*Liquor Volatilis Cornu Cervi*).

No. 13. SPIRIT OF SAL VOLATILE. — This volatile aromatic spirit is taken in the same manner, and for the same purposes, as the spirit of hartshorn. It is more pleasant to the palate, and a more powerful stimulant than spirit of hartshorn, on account of being impregnated with the essential oil of cloves and lemon-peel. Half a tea-spoonful of this spirit with one of compound spirit of lavender, taken in a tea-cupful of an infusion of horse-radish and mustard-seed, three times a-day, has been attended with great advantage in gouty affections of the stomach, paralytic numbness of the extremities, and flatulent complaints of long standing. — (*See* STIMULATING MIXTURES.)

It will likewise prove a valuable addition to the tincture of the essential salt of bark, made with sherry or port wine, as directed, No. 24., in debility of the stomach and nervous system. —(*See* NERVOUS MIXTURES.)

The new name for this spirit is *Aromatic Spirit of Ammonia* (*Spiritus Ammoniæ Aromaticus*).

No. 14. VITRIOLIC ÆTHER. — This Æther, in the quantity of a tea-spoonful in a glass of peppermint or pure water, often affords immediate relief in spasmodic colic, cramp of the stomach, and asthmatic, hysterical, and fainting fits. A small dessert-spoonful in a wine-glass of camphorated mixture, Dr. Laird and other practitioners assert to be an admirable remedy when the gout attacks the stomach. It often gives ease in the most violent head-ache, on being applied externally to temples or forehead, and relieves the tooth-ache when laid on the affected tooth and surrounding gum by means of lint.

The *external* use of this remedy is capable of producing very opposite effects, according to the *mode* of application. If its evaporation be prevented by covering the lint or linen moistened with it with the hand, it will so powerfully stimulate the skin, as to produce considerable inflammatory excitement, which in deep-seated pains proves beneficial. — (*See* DERIVATIVES, p. 23.) — On the contrary, if the part of the body to which it is applied be *exposed* to the air, its rapid evaporation will produce an intense degree of cold, and, in this manner, it has proved more beneficial, allaying superficial *acute* pains, particularly when attended with increased heat.

Æther should be always taken in a *cold* vehicle, and swallowed as quickly as possible; and the bottle should be well corked, and kept in a cold place, inverted in water to prevent its escape. — (*See* ANTISPASMODIC MIXTURE.)

In cases of acute tooth-ache, Æther applied over the affected tooth, so as to inclose part of the gum on both sides by means of lint, generally succeeds in subduing the pain immediately; and, in cases of rheumatic affections of the teeth or jaw, its external application in the manner above directed, so as to excite inflammatory action in the skin over the seat of the disease, considerably co-operates with its application within the mouth.

The once celebrated anodyne liquor of Hoffman, and Clutton's febrifuge spirit, are weak æthers.

Good æther should not redden the colour of litmus paper, nor produce a precipitation with a solution of barytes.

The new name of æther is *Sulphuric Æther* (*Æther Sulphuricus*).

No. 15. SWEET SPIRIT OF NITRE. — This article, in the dose of twenty to thirty drops in a little water, allays fever, quenches thirst, promotes the secretion of urine, moderately strengthens the stomach, and resists putrefaction; hence it becomes a valuable medicine in the first stage of Typhus fevers. It may be given with a small dessert-spoonful of Mindererus's spirit, No. 10., every three or four hours. Being a cordial, it is

not a proper medicine in acute inflammatory fevers, or fevers arising from accidents, or attendant on local inflammation. It is also an useful remedy for suppression of urine, and for gravel, in which cases it may be administered, from thirty to forty drops, three times a day, in either the almond emulsion, decoction of marsh-mallow-root, or linseed tea. A tea-spoonful of a mixture of equal parts of sweet spirit of nitre and spirit of sal volatile, taken twice a day in two table-spoonsful of a mixture of gin and water, or, if the patient be much debilitated, in the decoction of rhatany-root (*See* RHATANY-ROOT), will increase the secretion of urine in dropsical predisposition, and at the same time strengthen the constitution.

Sweet spirit of nitre, when properly made, will not effervesce with an alkali, or give a blue colour to tincture of guaiac gum. By age, or exposure to the air, it is so far decomposed as to possess very opposite properties; it should therefore be kept in the same manner as directed for æther.

The new name for sweet spirit of nitre is *Spirit of Nitric Æther* (*Spiritus Ætheris Nitrici*).

No. 16. ANTIMONIAL WINE. — In inflammatory affections of the chest, and recent cough from obstructed perspiration, this vinous solution of emetic tartar, administered in a mucilaginous vehicle (*See* COUGH MIXTURE), relieves respiration, promotes expectoration, and abates fever, by producing a determination to the skin, and quieting the circulation.

For the purpose of exciting full vomiting, it is not so efficacious as the emetic tartar or ipecacuan powder.

In sciatica and inflammatory rheumatism, antimonial wine, in the dose of thirty drops, with fifteen of laudanum, No. 31., in a glass of mint-water, taken every night at bed-time, was a very favourite remedy with the late Dr. Fothergill, and we have found it to deserve the high commendation bestowed on it by that esteemed author.

Like all other antimonial preparations, it must be regarded as an active remedy, and should not be *indiscriminately* prescribed in *all* fevers, or in any fever when the vital powers are considerably reduced. It has, certainly, under proper management, been productive of much good, but in fevers *strictly inflammatory*, it has, on the other hand, frequently done irreparable mischief. When administered in the latter stages of low nervous fevers, and *putrid* ulcerated sore throats, it has occasioned such great evacuations as to hurry the patients to their graves in a short time. In fevers of a doubtful nature, it will be more advisable to employ ipecacuan powder, which will produce the same salutary effects, without reducing the strength of the patient; and for the purpose of exciting and keeping up perspiration, and allaying fever. In

typhus fever, Mindererus's spirit, with camphorated julep, (*See* SUDORIFIC MIXTURES,) will often answer as well as the antimonial preparations in exciting perspiration, and may be employed with safety and effect in the advanced stages of autumnal inflammatory fevers, bordering on typhus, attended with too much excitement of nerves and blood-vessels to allow of the employment even of a mild tonic.

In inflammatory eruptions of the skin, antimonial wine, in small doses of eight or ten drops three times a-day, in a tea-cupful of the decoction of the dried marshmallow-root *, is a good alterative medicine, and often succeeds in obstinate leprous affections or inflammatory scorbutic eruptions, after other alterative medicines had proved ineffectual.

Antimonial wine is a more certain and efficacious sudorific than James's fever powder, which is a preparation of antimony. — (*See* SUDORIFICS, p. 23, and EMETICS, p. 27.)

No. 17. TINCTURE OF MYRRH. — This solution of gum myrrh in proof spirit is chiefly employed as a lotion for the teeth and gums; and in those constitutional caries, or decays of the teeth, which commence with black specks, or superficial holes in the enamel, it often proves beneficial in checking their progress; but it can have little or no effect in strengthening the gums. When the gums are spongy or tender, this tincture, from its stimulating quality, is very improper. In such cases an astringent application, as the simple tincture of rhatany root, by constringing the vessels, will prove very useful. — (*See* ARECA CHARCOAL, and TOOTH-ACHE.)

Myrrh is esteemed as a *warm* strengthener of the stomach and bowels, and as such has proved serviceable in those female disorders that proceed from languor or debility of the system. A tea-spoonful of the tincture may be taken twice a day, in a glass of cold camomile tea, or, as recommended by Dr. Lind, with half a drachm of Peruvian bark powder, in a glass of peppermint water. The best method of administering myrrh in cases of green-sickness is in the form of pills, combined with steel, gentian, and aloes, as the ecphratic pill of the Edinburgh Pharmacopœia, ten grains of which, divided into two pills, may be taken twice a day. — (*See* GREEN SICKNESS.)

Both tincture of myrrh, and the compound tincture of benzoin, commonly called Friar's Balsam, are improper applications for recent cuts; the stimulating resin they contain exciting a degree of inflammation, which will prevent the union of the sides of the wound, and thereby occasion ulceration. — (*See* CUTS AND BRUISES.)

* This decoction is made by boiling two ounces of the dried root in a pint and a half of water, till reduced to a pint. The foreign root is the best.

In cases of *putrid* sore throat, and the last stage of thrush, tincture of myrrh, with the dilute vitriolic acid, and an infusion of roses, form an excellent gargle.—(*See* DETERGENT GARGLES.)

No. 18. DILUTE SULPHURIC ACID. — This medicine, in the dose of six to ten drops twice a day, in a wine-glass of ginger and camomile tea, decoction of rhatany root or of Peruvian bark, or such other vehicle as the state of the constitution may indicate, is a valuable medicine in weakness and relaxation of the stomach, and decay of constitution, particularly when occasioned by the abuse of spirituous liquors. Taken in a decoction of Iceland moss, it is an excellent remedy for restraining the profuse nocturnal perspiration attendant on pulmonary and mesenteric consumption and general relaxation in young subjects.

In cases of indigestion arising from nervous excitement, and attended with a sense of thirst, or with a feverish state of the system, the dilute sulphuric acid has proved more beneficial than the vegetable tonic medicines. It has also been much extolled as a remedy for vomiting, but in such cases the carbonate of potass generally answers best. — (*See* SALT OF WORMWOOD.)

For redundancy of bile in the stomach or intestines, this medicine will chemically prove more serviceable than calomel, or the drastic purges commonly employed for its evacuation, and will, at the same time, tend to remove the cause, by allaying morbid excitement of the stomach, which the frequent use of strong purgative medicines often increase. — (*See* BILIOUS AFFECTIONS.)

In cases of indigestion, arising from debility or relaxation of the muscular coat of the stomach, and particularly when attended with a want of tone in the nervous and muscular systems, the dilute sulphuric acid, like the saline aperients, acts injuriously. — (*See* TONICS, p. 49, and STOMACHICS, p. 47.)

The dilute sulphuric acid with an infusion of rose leaves makes an excellent gargle for inflammation of the throat, and relaxation of the soft palate.—(*See* ACIDULATED GARGLE.)

This acid has the property of covering in a considerable degree the bitter taste of the Peruvian bark and other drugs. The quantity of fifteen drops to a pint of the solution of Epsom salt, recommended No. 2., renders it more agreeable to the palate, and more efficacious as an alterative medicine in inflammations and diseases of the skin in young people.

It does not differ in its medicinal virtues or strength from the *acid elixir of vitriol.*

The old name for the dilute sulphuric was, *Dilute Vitriolic Acid.*

No. 19. TINCTURE OF ASAFŒTIDA. — This strong solution of asafœtida gum in proof spirit, in the quantity of thirty

to fifty drops, in a glass of pennyroyal or peppermint water, is much employed as a remedy for lowness of spirits, hysteric (*See* ANTIHYSTERIC MIXTURE) and fainting fits; different nervous complaints, spasmodic colic (*See* ANTISPASMODIC MIXTURE) and asthma (*See* ASTHMATIC MIXTURE). The addition of ten drops of sal volatile to each dose will render it more pleasant to the palate, and at the same time coincide with its virtues.

A mixture of one-fourth of tincture of asafœtida, and three of paregoric elixir, taken in the dose of a tea-spoonful, has been found particularly serviceable in relieving asthma in languid constitutions, and chronic difficulty of breathing, by expelling air from the stomach, promoting expectoration, and allaying irritation (*see* ASTHMA). In the hooping-cough, unattended with fever, it will prove equally beneficial, in doses proportioned to the age of the patient, viz. to a child of two years old, six drops, increasing two drops for every year.

No. 20. VOLATILE TINCT. OF GUAIAC GUM.—This solution of the guaiac gum in the compound spirit of ammonia, in the quantity of one or two tea-spoonsful, is a popular, and very efficacious remedy for *chronic* rheumatism, gout of the stomach, and partial paralytic numbnesses. It may be taken with the camphorated julep, in the proportion recommended for the antirheumatic mixture, or in case of being attended with debility of the system, with decoction of bark. The part affected with rheumatism or palsy should also be well rubbed with volatile liniment, or stimulated with electric sparks, and kept warm by means of flannel. When rheumatism is attended with fever, and the subject is young, this tincture, in consequence of its stimulating quality, is not proper; and if it should not in such case promote perspiration, it will aggravate the complaint, by increasing the feverish state of the system, but in cases of rheumatic fever in persons far advanced in life, or of a languid or leucophlegmatic habit, it is a valuable remedy mixed with the camphorated julep.

The last new name for this tincture is *Ammoniated Tincture of Guaiac Gum* (*Tinc. Guaiac. Ammon.*)

No. 21. SALT OF WORMWOOD.—This alkaline salt is chiefly used for making the saline mixture with the juice of the lemon. It is sometimes prescribed alone, in doses of six or ten grains, dissolved in mint-water, for correcting acidity in the stomach, and for increasing the secretion of urine. It is the basis of the alkaline mephitic water, which is made by dissolving two ounces and a half in five quarts of distilled water, and afterwards saturating it with fixed air, by Nooth's or Parker's apparatus. This water, to the extent of half a pint two or three times a day, has proved highly beneficial in cases of red gravel

or of calculi in the bladder in which the uric acid predominates. In cases of *white* gravel, or calculi attended with a deficiency of acid in the urine, it is improper. (*See* ANTALKALINES, p. 7.) and ANTILITHICS, p. 7). If this quantity should prove too cold or produce unpleasant distention in the stomach, two tea-spoonsful of gin, or a little brandy, may be taken with it: or if it should nauseate the stomach, a tea-spoonful of paregoric elixir may be added to each draught, or taken a quarter of an hour before it. — (*See* CARBONATE OF SODA, No. 60.)

A solution of salt of wormwood in peppermint-water, in the proportion of two drachms of the former to two ounces of the latter, is much recommended by Dr. Rosentein as a remedy for rickets, in the dose of twenty or twenty-five drops, twice a day, to a child of four years old to eight, in a little milk or whey. In the same manner it has been found beneficial in convulsive fits of infants, as appears by several late communications by practitioners of celebrity in the Monthly Gazette of Health. Its salutary effects in the complaints of children no doubt are chiefly produced by neutralising acid matter. In rickets, lime is a more valuable remedy, as it not only corrects acidity, but strengthens the organs of digestion. — (*See* RICKETS AND LIME-WATER).

Salt of wormwood is rendered more pleasant to the palate, and in many respects improved as a medicine, by being neutralised with fixed air. This preparation, termed carbonate of potass, is preferred for making the saline draughts, when they are directed to be taken in a state of effervescence, and for making the mephitic alkaline water. It has also been found to succeed in the quantity of five grains, dissolved in an ounce of peppermint, taken every two hours, in allaying vomiting, after other medicines had failed.

Salt of wormwood is a powerful agent in counteracting the fatal effects of some mineral salts taken into the stomach. — (*See* TREATMENT OF MINERAL POISONS.)

The alkaline salt procured from wormwood, differing in no respect from that of other vegetables, the term salt of wormwood is no longer employed by professional men. The last new name is *Subcarbonate of Potass* (*Potassæ Subcarbonas*); and for the salt, neutralised with fixed air, *Carbonate of Potass* (*Potassæ Carbonas*).

No. 92. CRYSTALLISED LEMON ACID. — This preparation affords a good substitute for the juice of the lemon when it cannot be obtained, which often happens during a long voyage. A drachm of this acid is equivalent to an ounce and a half of the expressed juice. Equal quantities of the crystallised lemon acid and salt of wormwood, about a drachm of each, dissolved in half a pint of water, with six drops of essence of peppermint, and a little sugar, readily make the saline mixture, so much employed

in inflammatory fevers. When the skin is parched with great febrile heat, this mixture generally operates as a gentle sudorific, cools the body, allays thirst, increases the secretion of urine, and operates slightly on the bowels; but to produce these effects, it should be taken in a much greater quantity than is usually prescribed: indeed, it is better calculated as a common beverage than a medicine; for such is its weakness, that unless it be taken to the extent of nearly a quart in the space of twenty-four hours, it cannot be expected to produce any salutary effect of consequence. The saline mixture, both in putrid and inflammatory fevers, succeeds better when given in the act of effervescence, which is done by dissolving a scruple of salt of wormwood in an ounce of mint-water, and mixing with it, at the moment of taking, a table-spoonful of lemon-juice, sweetened with sugar, or a scruple of the crystallised lemon acid, with few grains of sugar, previously dissolved in an ounce of common water. The effervescence with lemon-juice being gradual, answers in this case better than the crystallised acid, the fixed air in the latter being disengaged too suddenly for a sufficient portion to be swallowed, through being deprived of its mucilage in the process of crystallisation; but when the recent juice cannot be readily procured, this inconvenience may be obviated, by dissolving in the acid a little white sugar; or the effervescence may be produced in the stomach, by first taking the solution of the salt of wormwood, and immediately afterwards the lemon-juice, or solution of the crystallised acid. The effervescence with the salt of wormwood, neutralised with fixed air (termed carbonate of potass), being considerably greater than with common salt of wormwood, it should be preferred for making the effervescing saline draught.

The saline draught, in a state of effervescence, is a good preventive medicine against the infection of contagious fevers, and may be employed as an auxiliary to the nitrous fumigation. — (*See* THE MEANS OF DESTROYING CONTAGIOUS EFFLUVIA.)

Lemon acid has lately been found very beneficial in cases of *white* gravel, and in those cases of calculi which form in consequence of the urine not being sufficiently acid to keep all its saline ingredients in solution. — (*See* ANTALKALINES, p. 7. and ANTILITHICS, p. 11).

The last new name for this preparation of lemon juice, is *Citric Acid* (*Acidum Citricum*).

No. 23. IPECACUAN POWDER, is a very safe, and in general an efficacious emetic, possessing the advantage of operating as an aperient medicine, without distressing the patient, when it fails properly to excite vomiting. It is, therefore, deservedly employed in almost every disease in which full vomiting is required. It is given from one scruple to twenty-five grains, mixed

with a little water, or with the emetic tartar.—(*See* EMETIC POWDER.)

In the small dose of one to three grains, ipecacuan powder furnishes an useful, active, and, at the same time, innocent sweating medicine* (*See* SUDORIFIC MIXTURES), and proves highly serviceable, combined with a quarter of a grain of opium, or five drops of laudanum, every two or three hours, in dysentery, obstinate purgings, asthma, and hooping-cough. The emetic dose of twenty-five grains, with a tea-spoonful of tincture of asafœtida, taken in a little peppermint-water at bedtime, has proved very beneficial in shortening, and sometimes preventing, the paroxysm of spasmodic asthma.

Ipecacuan powder, in the quantity of two grains twice a-day in a little peppermint-water, has been found very efficacious in spitting of blood and excessive active flooding, by Dr. Stoll, of Vienna; and ample experience in this country has proved it to be a safe and efficacious remedy in these cases; for when it exceeds its intended operation by exciting vomiting, the complaints have rather been relieved than aggravated by it. When the flooding is passive, that is, occurring in a weakly person of a relaxed habit, and whose system of blood-vessels is in an opposite state to that of plethora, especially after delivery, nauseous doses of ipecacuan might endanger life, by increasing the general languor. In such cases the best internal remedies are astringents with an aromatic, (*See* ASTRINGENTS), and application of cold vinegar and water to the abdomen, by means of a folded napkin. In the smaller dose of one or two grains every four hours, it produces a considerable determination to the skin, and promotes expectoration: hence it is a most valuable medicine in pleurisy, inflammatory affections of the lungs, recent coughs from obstructed perspiration, and the first stages of pulmonary consumption.—(*See* COUGH MIXTURES.)—It has lately been much recommended in the small dose of one or two grains every morning, by a French physician, and by Dr. Buchan, in cases of the indigestion of elderly people, attended with an accumulation of phlegm in the gullet or windpipe. In debilitated elderly subjects, life so much depends on the stomach performing its office, that the small dose of one grain of ipecacuan, by disordering it, has occasioned death. When the stamina are good, by occasioning the internal membrane of the gullet and stomach to throw off the accumulated slime, it

* The celebrated sweating powder of Dr. Dover is composed of one part of ipecacuan powder, one of opium powder, and eight of vitriolated kali, commonly called sal polychrest. From ten to twenty grains may be taken in any convenient vehicle in rheumatic affections. The patient should lie between the blankets or in a flannel shirt, and take, as soon as he begins to perspire, some warm liquid, in small portions, frequently; such as thin gruel, bohea-tea, or weak white-wine whey.

has proved very beneficial; but even in such case a tonic medicine should be employed. —(*See* STOMACHICS.)

Ipecacuan has the property of diminishing the soporific effects of opium and other vegetable poisons, and hence it is recommended as a powerful auxiliary to the emetic tartar, for the purpose of exciting vomiting, when too great a quantity of a vegetable poison has been taken into the stomach. —(*See* TREATMENT OF POISONS.)

No. 24. ESSENTIAL SALT OF BARK. —This preparation contains, in a concentrated state, the volatile and active properties of the Peruvian bark, in a high degree of perfection, and answers every purpose of the powder, without producing nausea, vomiting, or purging, which are frequently excited by the powder, and sometimes by the decoction of bark.

Ten grains of this preparation are equal to a drachm of the bark in substance. It is much more pleasant to the palate and stomach, and may, with equal advantage, be employed where the use of a strengthening medicine is indicated. In intermittent and remittent fevers, ten grains may be taken every two hours, either in the form of a pill, or dissolved in an ounce of camphorated julep, as recommended for the camphorated bark mixture; but for typhus fever in an advanced stage, putrid sore throat, or mortifications, red port wine is a better vehicle; with which, in the proportion of three drachms to a quart, it makes an elegant tincture, possessing all the active properties of the Peruvian bark, and at the same time free from the pernicious effects of the ardent spirit of wine, with which the simple and compound tinctures are made.

This valuable preparation of the Peruvian bark was first made in France, by the Count de Garraye, and first prescribed in this country by Dr. James Carmichael Smyth, who, from repeated trials, gave it a decided preference. Apothecaries in the country, unacquainted with the preparation, and some, perhaps, from sordid motives, have, in compounding prescriptions, substituted for it the common extract, which is a different article, and does not contain the resinous and volatile parts of the bark.

The sulphate of quinine has been lately introduced into the practice of medicine by some French chemists and physicians, as containing, in a state of great concentration, all the peculiar medicinal properties of the bark. It is only its bitter principle, and being free from the peculiar astringent quality, in which the *tonic* power of the bark principally resides, it is inferior to the preparation termed the essential salt of bark. In cases of indigestion arising from debility, or in elderly subjects, the sulphate of quinine generally disorders the stomach, and thereby increases the general debility of the system. In cases of ague this article

has been very successfully prescribed by Dr. Elliotson, Dr. De Lys, and other eminent physicians.—(*See* QUININE and SULPHATE OF QUININE.)

No. 25. SALT OF STEEL. — This preparation of iron has been long held in high estimation as a great strengthener of the stomach and bowels, and at the same time, by increasing the red globules of the blood, affords a valuable remedy in dropsical complaints, green sickness, and other diseases of debility, attended with poverty of blood.

From its poisonous effects on white-blooded animals, it proves a very powerful vermifuge, taken in the dose of five grains (dissolved in a glass of water), when the stomach is most empty. It is not so safe nor so generally efficacious in expelling worms as the basilic powder. — (*See* ANTHELMINTICS, p. 9.)

The phosphate of iron is recommended by Mr. Carmichael, an eminent surgeon of Dublin, as a remedy for cancer. This ingenious author, supposing that iron is held in solution in the blood by the *phosphoric* acid, recommends the saline preparations to be made with this acid, in order that it may sooner, and in greater quantity, enter the circulation. The preparations he has found most successful, are — the oxyphosphate, the sub-oxyphosphate, and phosphate of iron. (*See* CANCER.)

The salt of steel readily dissolves in water, and, in the proportion of a grain to a pint affords a good substitute for the native chalybeate waters. Thirty grains dissolved in a quart of sherry wine, make a very excellent chalybeate wine, of which a small wine-glassful may be taken two or three times a day.

In cases of green-sickness and irregularity of the menstrual evacuation, it has been found to answer best when combined with aloes, a form for which is given among the remedies recommended for green-sickness. If piles or any inflammatory affection of the rectum exist, the alkaline extract of jalap should be substituted for aloes.

In cases of dropsy, whites, and gleet, the extract of rhatany-root will prove a very powerful auxiliary in the following proportions:

Take of salt of steel, - -	ten grains.
Extract of rhatany-root, - -	one drachm.
Alkaline extract of jalap, -	twenty grains.
Oil of caraway seeds, - -	ten drops.

With simple syrup, make into twenty pills, two to be taken twice a day, with a wine-glassful of the infusion of buchu leaves.

When the countenance is florid, and the patient of a plethoric or feverish habit, steel is improper, even in cases of suppression or retention of the menses.

The last new name for Salt of Steel is *Sulphate of Iron (Ferri Sulphas)*.

No. 26. RHUBARB POWDER.—Rhubarb has long been held in high estimation as a mild and efficacious aperient medicine; and, on account of its operating with less violence or irritation than any other aperient medicine, is generally employed with pregnant women and children. Besides its purgative quality, it is celebrated for an astringency, which strengthens the tone of the stomach and intestines, and hence proves useful in disorders arising from laxity of the fibres, or sluggish state of the bowels. The purgative dose is from one to two scruples, in a little peppermint-water, to which ten grains of calcined magnesia may be added, when acidity prevails in the stomach.

A powder composed of six parts of rhubarb, two of calomel, and a little ginger powder, is an efficacious remedy for worms, in people whose bowels are weak and irritable. For the purpose of suspending the calomel, it should be taken in a thick vehicle, as honey or jelly, or made into pills with a little syrup.

In complaints of the stomach, which are generally termed bilious, arising from inactivity of the liver; rhubarb does not operate so efficaciously as the Bengal antibilious pills, which not only act on the stomach and intestines, but remove the cause existing in the liver. (*See* APERIENT PILLS, No. 46.)

A mixture of fifteen grains of rhubarb, a scruple of calcined magnesia, a drachm of white syrup of poppies, two drachms of compound tincture of cardamom seeds, and two ounces of dill-water, in the dose of a tea-spoonful, will prove very beneficial in removing many disorders to which children are subject from redundancy of acidity in the stomach and intestines, and is more safe and efficacious than the advertised carminatives, which, by occasioning costiveness, not unfrequently produce considerable mischief. (*See* ABSORBENT MIXTURE.)

Rhubarb is not only rendered more aperient by a small addition of sal polychrest, but its secondary constipating effects are in some degree obviated by it. Dr. Hugh Smyth and Dr. Warren were very partial to this latter combination, as a stomachic medicine, in the small dose of five grains of rhubarb, and fifteen grains of sal polychrest, in peppermint-water, about twice a day. In larger doses it is very apt to occasion griping pains.

In cases of constitutional costiveness in young subjects, rhubarb is an improper aperient on account of increasing the disposition to constipation. (*See* ALKALINE EXTRACT OF JALAP.)

In diseases attended with extreme debility of the system, where it is necessary to relieve the bowels, rhubarb, on account of possessing a tonic power, may be benefically administered when no other medicine can be with safety employed.

For a dinner pill, that is to invigorate the stomach before dinner, and for obviating costiveness, the extract of rhubarb is preferable to aloes, not only on account of being a stomachic, but on account of its not irritating the rectum; and combined with the extract of fumitory, dried subcarbonate of soda, and a little ginger, it forms a very excellent dinner pill for those invalids whose stomachs and bowels require the aid of a mild tonic. (*See* DINNER PILLS.)

The Russian rhubarb, sold under the name of Turkey rhubarb, is evidently very superior to that imported from the East Indies, both as an aperient and a stomachic.

No. 27. JALAP POWDER. — In the dose of twenty to twenty-five grains, with two of ginger — or twenty grains mixed with two drachms of compound tincture of senna, and an ounce of mint-water — is a very pleasant, safe, and effectual purgative medicine; and generally performs its office without occasioning nausea or much griping. In cases of dropsy of the extremities or belly, four grains of calomel, to fifteen or twenty grains of jalap, with two or three drops of essence of peppermint, will prove very beneficial both as a purgative and diuretic. For these complaints, this medicine should be repeated three times a week, and the tonic mixture, No. 77. taken in the intermediate times.

For delicate constitutions, a combination of jalap and rhubarb, in equal proportions, with three drops of essence of mint, is preferable to jalap alone.

Alkaline Extract of Jalap, on account of admitting of being made into pills, and consequently of being conveyed into the stomach without irritating the palate or gullet is now generally preferred to the powder. It contains in a concentrated state all the active qualities of the root, and it has been found to agree with the stomach even when in a state of excessive excitement or sensibility, and to operate pleasantly on the bowels. (*See* ALKALINE EXTRACT OF JALAP.)

In hypochondriacal subjects jalap sometimes manifests little or no effect as an aperient, and, on the bowels of quadrupeds, it is said to produce no sensible effect whatever.

No. 28. CAMPHORATED POWDER. — This powder, composed of camphor, sugar, and gum-arabic, affords a very convenient form for making the camphorated julep, for which camphor is chiefly, if not solely employed in domestic practice. This julep is made in the following manner: rub one drachm of the camphorated powder in a mortar, and add to it, by degrees, one pint of warm (not boiling) water, and when well blended strain the liquor through fine linen.

A mixture of six ounces of this julep, and two ounces of Mindererus's spirit, taken in the dose of three table-spoonsful every three or four hours, is a safe and good sudorific medicine in inflammatory and febrile affections. In fevers, strictly inflammatory, it may be given with the Antimonial Wine, No. 16. In putrid fever, malignant sore-throat, and mortifications, it affords a very excellent vehicle for the exhibition of Peruvian bark. (*See* ESSENTIAL SALT OF BARK, No. 24. and TONIC MIXTURES.) In strangury, three table-spoonsful of a mixture of camphorated julep, half a drachm of purified nitre, and two drachms of gum-arabic, repeated every three hours, will prove of great service.

In *chronic* rheumatism, and *paralytic affections*, camphor, combined with the guaiac gum, affords an excellent remedy. (*See* ANTI-RHEUMATIC MIXTURES.)

In cases of increased irritability of the nervous system, a mixture of camphor, tincture of hibiscus abelmoschus, sp. sal volatile, &c. may be taken with great advantage. (*See* NERVOUS MIXTURES.)

In cases of hooping-cough, chronic difficulty of breathing, and asthma, a mixture of camphorated julep with oxymel of colchicum seeds, and æther (*See* ASTHMATIC MIXTURES) was much recommended by the celebrated Dr. Hartmann, and is certainly a valuable composition for these complaints.

It is worthy of remark, that in *acute* fever, attended either with a determination of blood to the head or lungs, camphor is a very doubtful remedy, and when it fails in those cases to excite perspiration, it generally increases the fever. In this fever it also often disturbs the brain and nervous system.

In maniacal cases, and the delirium attendant on an advanced stage of typhus fever, camphorated julep, in the dose of three table-spoonsful, has often succeeded in procuring sleep after laudanum had failed: in the same manner, repeated every four hours, it proves serviceable in *eruptive* fevers, and frequently produces the return of the eruption of small-pox and measles after recession.

The volatile part of camphor is by some esteemed an efficacious preventive against contagious fevers; but in this respect it is very inferior to the camphorated acetic acid.

No. 29. COMPOUND CRETACEOUS POWDER.—This powder, composed of prepared chalk, cinnamon, and gum arabic, is a very useful medicine for correcting acidity in the stomach, when attended with looseness, and has been found particularly serviceable in diarrhœa arising from acidity or irritability of the bowels. Twenty grains may be taken in a glass of water, with three drops of the essence of cinnamon; or with laudanum, as the cretaceous mixtures.

When looseness is evidently the consequence of acrid humours in the stomach and intestines, fifteen grains of rhubarb and two of calomel should precede the use of this medicine.

When purging occurs spontaneously in fever, it should never be suddenly checked. Even in low putrid fever, it is often of a critical nature, and highly beneficial to the patient. In such cases its effects must be attentively watched, and no astringent medicine of this kind administered, unless clearly indicated by the reduced state of the patient. — (*See* DIARRHŒA.)

The compound cretaceous powder, for correcting acidity in the stomach, answers as well as magnesia: it, however, differs essentially in its effect on the bowels after uniting with an acid; the magnesia acting as a purge, while the cretaceous powder produces costiveness, hence, when acidity is attended with costiveness, magnesia should be preferred, and when with a contrary state of the bowels, the cretaceous mixture. In some cases they may be advantageously combined (*see* MAGNESIA). The cretaceous powder is very similar to the Gascoign ball, the salutary effects of which depend on its absorbent property. When purging is not excessive, or the object of practice is to moderate, and not to restrain it entirely, lime-water is preferable to this powder. — (*See* LIME-WATER.)

The compound cretaceous powder is often administered in the dose of ten to twenty grains two or three times a-day, with prepared calomel, or with the blue pill, to prevent its disturbing the bowels, when it is desirable to affect the system with mercury.

No. 30. EXTRACT OF LEAD. — This solution of lead in vinegar makes a good discutient cooling lotion, in the proportion of ten drops to half a pint of pure water, with half a drachm of laudanum, for inflammation of the eyes; but for bruises, slight burns, scalds, excoriations, or inflammation on the surface of the body, treble the quantity of the extract may be employed, and an ounce of rectified spirit of wine, or three ounces of white-wine vinegar, substituted for the laudanum.

This extract is *solely* used externally; and as colicky and paralytic affections have been known to arise from a portion of the lead being absorbed, when the inflammation or injury was *extensive*, it will be advisable in such cases to substitute a lotion, composed of four ounces of white-wine vinegar, an ounce of rectified spirit of wine, and eight of water. This will generally answer all the good purposes of the extract of lead, without producing any of its ill effects, and therefore, in *domestic* practice, should be preferred. The good effects of lotions, no doubt, in a great measure, arise from their being applied *cold*; and as lead certainly diminishes nervous excitement and arterial action, a slight impregnation of it must, in cases of active inflammation, prove

highly beneficial. When there is a tendency to gangrene, on the same principle, it is very improper.

The late Sir George Baker published twelve cases of infants, who died at Dartmouth of convulsions, occasioned by the application of an ointment of Goulard's extract to the nipples of their nurses. This ointment, under a plausible name, was sold by a woman famous for her skill in the treatment of sore nipples: and it is to be feared those accidents frequently occur from the use of the advertised nipple ointments, the basis of which I have ascertained to be lead. * For the means of counteracting the effects of lead taken into the stomach, *see* TREATMENT of MINERAL POISONS.

The last new name for extract of lead is *Liquor of Acetate of Lead* (*Liquor Plumbi Acetatis*).

No. 31. LIQUID LAUDANUM. — Of this solution of opium, in proof spirit, the ordinary dose is from twelve to thirty drops. It should of course be increased or diminished in proportion to the *degree* of pain and *intervals* of repetition. When judiciously administered, this is one of the most valuable medicines we possess; and in certain stages, and with certain combinations, is more or less employed in almost every disease incident to the human frame. It has the power of mitigating pain, inducing sleep, allaying inordinate action, and diminishing morbid irritability; hence it becomes an invaluable remedy in preventing or subduing inflammatory fever, attendant on fractures and other accidents. In spasmodic colic, it will often prevent inflammation of the bowels; and in all spasmodic affections, it is more or less employed. In incurable and painful diseases, as cancer, diseased joints, &c. it alleviates the sufferings of the patient, and renders life tolerable.

If the quantity of eight or ten drops (which, in domestic medicine, on commencing its use should not be exceeded, unless the person has been in the frequent habit of taking it) do not answer, it may be repeated and increased till the desired effect be obtained; and in this manner the dose may, in general, be pushed with safety to a very great length; but this advice should only be followed in cases of *accidents* and *chronic* diseases, where there

* An infant having died suddenly of convulsions, and understanding the mother had applied an ointment, recommended by a friend, to her nipples, I was induced to examine the remedy. The person who recommended its use declared it was *perfectly innocent;* that it did not contain a particle of lead; but that it was made of litharge of gold, vinegar, and spermaceti ointment. Litharge of gold is a preparation of lead, and combined with vinegar, forms a powerful poison, which, I have no doubt, proved fatal to the infant. The dusting of children with white lead, generally termed *ceruse powder*, is also a dangerous practice, and is, no doubt, often the cause of convulsive fits and spasms in the bowels.

is considerable *local* irritation to overcome. When it disagrees in the ordinary quantity, it may often be given with much advantage in doses of five drops every hour till the desired effect be produced. When the exhibition of laudanum is deemed necessary by way of lavement, in cases of obstinate purging, pain in the bladder or womb, spasms in the bowels, &c., treble the quantity to that given by the mouth should be administered.

In violent purgings and fever, occasioned by difficult dentition, laudanum, in the dose of one or two drops about twice a day, will prove very serviceable, by allaying the irritability of the system: and as children are more or less affected at such times with acidity in the stomach, it will be proper to give it with magnesia, (*See* ABSORBENT MIXTURE for INFANTS); but if the bowels be disturbed, lime-water, in the quantity of a dessert-spoonful, will answer best; on the contrary, if the child be of a costive habit, or be disposed to rickets, enlarged bowels, &c., the body should be kept open by the occasional exhibition of rhubarb powder with calomel, as recommended under the head of RHUBARB POWDER, No. 26.

To exhibit laudanum with effect, we should ascertain whether the irritation be attended with a diminished or increased vitality. If the vital powers run too high, as in acute fever, or local inflammation, the dose of forty or fifty drops will have little or no effect in producing sleep or allaying pain; but if the system be in a relaxed or debilitated state, twelve drops will probably produce the desired effect. Thus, in the commencement of pleurisy, thirty drops of laudanum will not even allay cough; but when the system is reduced by bleeding and purging, six or eight drops will succeed in quieting cough, and procuring rest. Hence, in the use of opium or laudanum, it is of great importance to ascertain whether it be super-irritation or sub-irritation we have to subdue.

To counteract the soporific effects of too large a dose of laudanum, coffee has been much recommended as a diluter, and ipecacuan powder as an emetic; and when the quantity taken is so great as to render vomiting necessary, the ipecacuan should be administered to the extent of two scruples, with half an ounce of antimonial wine, and a tea-spoonful of the flour of mustard. The vegetable acids have been much recommended as powerful correctors of the narcotic quality of laudanum; but by some late experiments, made by Majendie in Paris, it appears that instead of diminishing, it increases it.

As laudanum is apt to produce costiveness, the state of the bowels should always be attended to during its use. To counteract this effect, the alkaline extract, with two or three grains of the extract of henbane, or laxative lavement, is the most effica-

cious. In asthma, particularly in elderly or debilitated subjects, laudanum, in full doses, is a dangerous remedy, and, by weakening the respiratory muscles, and power of expectoration, has occasioned suffocation.

For rheumatic inflammation of the eyes, two drops of laudanum, dropped within the eyelids twice a day, will often succeed in dispersing the inflammation much sooner than the saturnine lotions. Some practitioners prefer a watery solution of opium for this purpose: but the small quantity of spirit in the laudanum is more serviceable than otherwise. The watery solution is, however, less painful.

It appears by an article in the Gazette of Health, that the extract of henbane in the dose of four grains, not only counteracts the constipating property of laudanum, but effectually prevents any unpleasant effects on the head.

Many attempts have been made to account for the effect of opium, applied to the stomach in allaying pain in the extremities. The primary moving power of the body resides in the brain, and the functions of this organ are, in a great degree, kept up by the ganglions, and a sympathetic re-action of different parts of the body. The sympathy between the stomach and brain is by far the greatest; and, consequently, whatever tends to diminish it, will lessen that between the brain and other parts; hence laudanum, by reducing the excitement of the stomach, and, consequently, its power of re-action, allays pain in a remote part of the body.

On analyzing opium, a French chemist thinks he has discovered the part of it, that produces the unpleasant effects on the brain and nervous system, which so frequently follow a dose of laudanum or opium, and which, by disordering the nerves of the stomach, prevents its soothing or anodyne operation. To this article he has given the name of *narcotine*. The component part in which the anodyne virtues of opium resides, he has ascertained to be a peculiar alkali, which he has termed *morphine*; and certainly this part, given without the narcotine, is more certain in procuring sleep than laudanum, and is not attended with any unpleasant secondary effects on the brain or nervous system, the sleep it procures being sound and refreshing. — (*See* ACETATE OF MORPHINE.)

The new name of laudanum is *Tincture of Opium* (*Tinctura Opii*).

No. 32. ESSENCE OF PEPPERMINT. — This preparation (made by dissolving the oil of peppermint in rectified spirit of wine) readily mixes with water, and, in the proportion of thirty drops to a pint, makes a pleasanter and better simple water than that distilled from the herb; which, in consequence of not retain-

ing its flavour in perfection many weeks, is seldom to be procured good. The spirituous peppermint-water may be made by employing brandy in lieu of water, which will prove less pernicious to the organs of digestion, than that sold under the name of peppermint cordial, which is made with spirit of wine. Essence of peppermint is chiefly employed to correct the griping quality of purgative medicines, and to render such as are nauseous more palatable. The essence is, sometimes, taken alone on sugar, or in a little brandy or water, in cases of flatulence, colicky pains, spasms in the stomach or intestines, and fits of spasmodic asthma, in which it often affords speedy relief.

No. 33. ESSENCE OF CINNAMON. — This essence, made by mixing the oil of cinnamon with spirit of wine, is recommended for making the spirituous and simple cinnamon-water, in the same manner as the foregoing article, to which more sugar is usually added. Water, thus impregnated with the essential oil of cinnamon, is chiefly employed as a vehicle for administering the absorbent medicines in cases of looseness. — (*See* ASTRINGENT MIXTURE.) — The cinnamon-water, not possessing the astringency of the cinnamon bark, has no advantage over peppermint-water, and is here introduced as a proper substitute for the latter when the flavour is unpleasant to the patient.

No. 34. PREPARED CALOMEL—is a mild preparation of mercury. In domestic practice it is frequently employed as a worm medicine, and when combined with an active purgative, as scammony, senna, or jalap, it affords a valuable remedy for the destruction of every species of worms lodged in the alimentary canal. — (*See* ANTHELMINTICS, p. 9.) — For the complaints of the stomach and bowels, which are generally attributed to a redundancy of bile, but, in fact, arise from a deficiency of that secretion (in consequence of an indolent state of the liver), three or four grains may be taken once or twice a week, with ten grains of rhubarb, and three of Jamaica ginger powder, in the form of pills, with great advantage. — (*See* BILIOUS AFFECTIONS, or INDIGESTION.)

In cutaneous affections, generally termed scorbutic, and chronic inflammation of the edges of the eyelids, half a grain of calomel, taken twice a day, with six drops of the antimonial wine, No. 16., will prove a good alterative medicine: a dose of rhubarb should be occasionally taken, to prevent such a quantity entering the constitution as might produce fever, or irritate the gums. As soon as tenderness of the gums, or inflammatory action takes place in the tonsils, it should be discontinued.

For rickets and convulsions in children, which frequently arise from an accumulation of slime in the intestines, or obstructions of the mesenteric glands, this medicine, given in doses proportioned to the age of the child, with a little magnesia, is often at-

tended with the most salutary effects. Some practitioners prescribe six grains for a child of two years old; and experience has proved that children bear the operation of a large dose better than an adult; but in domestic medicine, it would be imprudent to exceed two grains for a child of one year old, which may be increased one grain for every two years to the age of five. On account of its being too heavy for suspension in a thin liquid, it should always be administered in a thick vehicle, as honey, currant-jelly, &c. — (*See* RICKETS.)

Calomel, although neither diuretic nor sudorific, never fails to increase the operation of such medicines when given in conjunction with them; hence it is very common to prescribe it with the antimonial powder, in fevers attended with *great dryness* of the skin, to excite perspiration, and with turpentine and squill-powder, to increase the secretion of urine. — (*See* ALTERATIVES, p. 3.)

Of all the mineral productions used in the practice of medicine, mercury is by far the most valuable, and is the only certain antidote that has been discovered against the syphilitic poison.

In obstructions and chronic inflammation of the viscera, particularly the liver, calomel, judiciously administered, is a most valuable remedy. For this purpose it should be given in the dose of one grain (formed into a pill, with conserve of roses), twice a day, so that it may enter the system. If it should disturb the bowels, from eight to fifteen grains of the compound cretaceous powder may be administered in a little water with each dose; and, if this should not succeed in preventing its purgative operation, half a grain of opium, or five grains of the opiate confection, may likewise be added to each dose. Green vegetable food, and particularly acids, should be avoided during its use, to prevent griping pains and diarrhœa.

It frequently happens in cases of affections of the liver or stomach, and other local diseases, where it is necessary mercury should enter the system, the patient, through irritability of the stomach or bowels, cannot properly persist in its internal use, even in the smallest dose. In such case mercury may be introduced into the habit by the skin, in the form of an ointment. For this purpose the hydro-sublimed calomel will answer best. The quantity of three drachms of this preparation, well mixed with an ounce of fresh lard, makes an excellent white mercurial ointment, the size of a small nutmeg of which may be rubbed on the inside of the thigh, leg, or fore-arm, every night till it nearly disappears. The operation of the friction should be performed by the patient if possible, as the hand of an assistant may rob him of a considerable portion. This method of introducing mercury into the system, I have found to answer better in diseases of the

liver, stomach, and glandular obstructions, than the exhibition of it by the mouth. By it the patient's stomach is not disordered, which is a great consideration when the local disease is attended with general debility.

The idea which generally prevails, that mercury disposes the body to take cold, is probably erroneous; for, by keeping up a determination to the skin, it is more likely to act as a preventive. When mercury enters the system, it often affects the glands of the throat, which, by the ignorant, is attributed to cold: certain it is, that those who are exposed to the changes of the weather, take mercury till it produces salivation without experiencing any mischief.

The fashion which has long prevailed of attributing almost every disease to a disordered state of the liver, and a consequent morbid secretion of bile, has brought calomel, or the blue pill, into very general use. In nervous subjects, and especially when the stomach is in a state of morbid excitement, the indiscriminate exhibition of mercury (either the preparation termed calomel, or the blue pill) has excited such a degree of excitement of the brain as to occasion a general irritability of nervous system, which has continued for life. The 90th and 91st numbers of the Monthly Gazette of Health contain several cases of madness, and distressing cases of nervous restlessness which were occasioned by the injudicious employment of mercury. A French physician attributes the increase of madness in this country to the *abuse* of mercury. — (*See* ALTERATIVES, p. 3.)

Calomel is sometimes adulterated with prepared chalk, which may be discovered by pouring on a small quantity of the suspected calomel, a little diluted vitriolic acid; if an effervescence ensue, the adulteration is proved.

The last new name for calomel is *Submuriate of Mercury* (*Submurias Hydrargyri*).

No. 35. EMETIC TARTAR. — This potent preparation of antimony, in the quantity of one grain, dissolved in a little warm water, will produce full vomiting. It is generally given with ipecacuan powder. — (*See* EMETICS, p. 27. and EMETIC DRAUGHT.) — On the first attack of hooping-cough, small-pox, measles, inflammatory fever, foulness of the stomach, and diseases of the lungs (as asthma and wheezing), it generally proves more successful than ipecacuan powder: but in fevers attended with great prostration of strength or looseness, ipecacuan, as operating less on the bowels, should be preferred.

As patients are differently affected by emetic tartar, the safest method of exhibiting it is by dissolving four grains in two ounces of warm water, and giving two table-spoonsful of the clear solution every half hour, till it vomits. For children, emetic tartar

is not so safe an emetic as ipecacuan powder; for when great debility of the system is present, even a small dose has been known to produce distressing effects. In domestic medicine, the preference should, therefore, be given to ipecacuan powder, when the patient is weakly.

To excite vomiting after a large dose of a *vegetable* poison, emetic tartar, in the dose of four grains, dissolved in a little water, answers better than ipecacuan, on account of its operating *more speedily*; but in cases of *mineral* poisons, ipecacuan, in the doses of two scruples to a drachm, is to be preferred, as the alkaline medicines administered to decompose the mineral poison would have the same effect on the emetic tartar, and thus render it inert. — (*See* TREATMENT OF POISONS.)

The observations on the use of antimonial wine (*see* No. 16.) are equally applicable to emetic tartar, of which the tartarised antimony wine is only a solution in white wine.

The last new name for emetic tartar is *Tartarised Antimony* (*Antimonium Tartarizatum*).

No. 36. BASILIC POWDER — is a medicine of great repute, as a remedy for *every species* of worms lodged in the alimentary canal, and is, without doubt, the most powerful and safe vermifuge with which we are acquainted. It may be given to children of all ages, in a little honey or currant-jelly, every second or third morning for a fortnight, in the dose of three grains to a child of one year old, increasing one grain for every year, to the age of twenty. When the stomach or muscular system is in a state of debility, the tonic mixture should be taken in the intermediate time, and continued for some time after the evacuation of worms. The basilic powder was a very favourite alterative purgative for children with the late Dr. Cam, of Hereford, and with Dr. Cheston, of Gloucester, two physicians of great eminence; and, by carrying off crudities and slime, which afford a nidus or lodgment for worms, and by removing obstructions of the mesenteric glands, it is doubtless a most valuable remedy both for children and adults. It is likewise a very good purgative medicine after measles and other eruptive fevers that require the use of aperient medicines, and for rickety children with enlarged bowels.

The basilic powder, in the dose of twenty or thirty grains, is also a valuable purgative medicine in dropsical cases, in which it will answer much better than large doses of cream of tartar, or any other cathartic, when a considerable discharge is required from the system.—(*See* DROPSY.)

A very convenient method of administering this powder to children is in small cakes, made with gingerbread. For this purpose, a drachm of the powder may be well mixed with a little

gingerbread paste, and afterwards divided into three equal parts, and baked. Each nut, containing twenty grains of basilic powder, may be divided into doses with sufficient accuracy, according to the age of the patient. *

No. 37. ANTIMONIAL FEBRIFUGE POWDER. — This medicine has long been sold under the name of "*Doctor James's Fever Powders.*" The best method of administering it is in the form of pills, by making a drachm into twelve pills, with a little conserve of roses or hips, one of which may be given every four or five hours, till it excites perspiration, in inflammatory fevers, rheumatism, and recent cough. It is not so certain in exciting perspiration as the antimonial wine, in the dose of twenty or thirty drops. It must be remembered, that in advanced stages of typhus or gaol fevers, and of putrid sore-throat, it may be productive of much mischief, by reducing the strength of the system, and thereby accelerating dissolution; for the low or putrid fever, in spite of all our efforts, will often run its course, and in such case the recovery of the patient will depend chiefly, if not entirely, on the natural strength of the constitution. The observations made on the indiscriminate use of antimonial preparations, under the head of Antimonial Wine, apply to this medicine.

The new name for this preparation is *Antimonial Powder.*

No. 38. CAMPHORATED ACETIC ACID.—The acetic acid has a powerful chemical action on contagious effluvia. In a state of vapour it corrects the vitiated atmosphere, and, from being respired, in some degree rouses the vital powers of the system, so as to enable it the better to resist the action of infection. For this purpose it is certainly more efficacious than the once celebrated thieves' vinegar; and, for fumigating *small* rooms or wards, will answer as well as the nitrous or muriatic vapours recommended by Dr. Carmichael Smyth, Mr. Cruickshanks, and citizen Morveau.

It is generally used by smelling a sponge moistened with it in a wide-mouth bottle, or gold case: but to correct the air of an infected room, it should be diffused throughout its atmosphere by evaporating it in a panican over the blaze of a candle.

For the purpose of smelling, in cases of head-ache, or in the contaminated air of gaols, hospitals, crowded rooms, &c., this acid is preferable to the volatile smelling salt, the latter having no effect in *destroying* putrid effluvia, and which by *much* use considerably injures the sense of smell, and may, in head-aches arising from a determination of blood to the brain, be productive of serious consequences.— (*See* SMELLING-SALTS, No. 39.)

* These nuts, under the name of Basilic Nuts, may be procured at the Medical Hall, 170, Piccadilly, opposite Bond Street.

This acid, impregnated with the essential oil of cloves, has been sold under the name of *aromatic spirit of vinegar*. By this addition its antiseptic powers are not increased, but the oil, by becoming rancid, renders it unfit for keeping in warm climates, and, in a great measure, diminishes its volatility.

No. 39. VOLATILE SMELLING SALTS.—These pungent smelling salts are useful to apply to the nostrils, in cases of fainting and hysteric fits, and suspended animation, when the usual resuscitative treatment begins to have some effect, and also in nervous head-ache of elderly people, arising from languid circulation. The late Mr. Godfrey obtained great reputation for a pungent perfumed smelling salts; but those made in Russia, in consequence of using ice in a very cold atmosphere, are very superior to Godfrey's in a peculiar mild pungency and delicacy of odour.—(*See* ERRHINES, p. 32.)

No. 40. BLISTERING PLASTER.—This plaster, composed of Spanish flies, wax, resin, and oil, is employed, as its title implies, for the purpose of blistering the skin. In spreading it, great care should be taken that the spatula be only sufficiently warm to soften it; for by much heat the acrid properties of the flies, in which its blistering powers solely reside, is destroyed. The best method of spreading it, is first to warm it at a little distance from the fire, till it be sufficiently soft to spread with a knife.

When the *speedy* operation of a blister is required, the skin of the part on which it is to be applied should be slightly inflamed by rubbing it with an onion, or spirit of hartshorn. A little camphor scraped over the surface of the blister will often prevent strangury, a common effect of a blister.

Both the discharge and inflammation produced by blisters are very beneficial in cases of internal or deep-seated inflammation, rheumatism, apoplexy, palsy, and almost all affections of the brain, and diseases of the joints.—(*See* VESICATORIES, p. 50.)

The new name for this plaster is *Plaster of Cantharides*.

No. 41. SPERMACETI OINTMENT.—This ointment, composed of spermaceti, white wax, and olive oil, is useful for healing blisters; but when the discharge is deemed necessary, the savin ointment, No. 44., should be used. It is likewise serviceable for softening the skin, and healing chaps and excoriations. This ointment, coloured with alkanet root, is sold for lip-salve.

No. 42. BROWN CERATE.—This cerate, made of bees' wax, olive oil, and prepared calamine, having been first recommended by Dr. Turner, is usually distinguished by the name of Turner's cerate. It is a good application for superficial ulcerations and excoriations, and for healing blisters; but for *recent* cuts, diachylon plaster, spread on leather, will answer best, by

keeping the edges of the wound in contact. It must be remembered, that the first object in the treatment of ulcers is to abate inflammation by avoiding exercise, and by the application of an emollient poultice of linseed meal, which, by promoting a healthy discharge, will prove more healing than all the boasted cerates. An ulcer, in a healing state, is neither painful nor attended with an offensive discharge; and therefore, if a wound be painful, or the discharge offensive, it cannot be going on well. It must also be observed, that without rest and the proper application of a roller, no ointment will succeed in the healing of an ulcer.—(*See* EPULOTICS, p. 31.)

No. 43. YELLOW BASILICON.—This ointment, composed of yellow resin, bees' wax, and oil, is an excellent application for promoting the digestion of ulcers; it should be spread *thinly* on lint, and applied the same size as the wound, and kept on by an external dressing of brown cerate, and a calico or flannel roller. When it does not succeed in correcting the vitiated condition of an ulcer, or proves too irritating, the addition of the citrine ointment, in equal proportions, will prove useful. When the surrounding skin is much inflamed or irritated, the anodyne or emollient poultice should be applied over the dressing of the digestive ointment.—(*See* DIGESTIVES, p. 24. and CHILBLAINS.)

The yellow basilicon is not so proper an application for recent cuts or wounds as the brown cerate.

No. 44. SAVIN OINTMENT.—This ointment, made by gently boiling bruised savin in fresh hog's lard, is employed for the purpose of making what is termed the perpetual blister, after the application of the blistering plaster. In consequence of its keeping up the discharge of blisters, without producing the irritation and pain excited by the ointment made of Spanish flies, or the repetition of a blistering plaster, it is now generally employed for that purpose; but in cases of palsy and *chronic* rheumatism, where the irritation of a blister is more required than the discharge, the Spanish fly ointment is preferable to it.

No. 45. SQUILL PILL.—This composition of squill, gum ammoniac, Spanish soap, and ginger, taken from ten to fifteen grains twice a day, is a powerful medicine in promoting expectoration, and increasing the secretion of urine: hence it is a valuable remedy in cases of *chronic* coughs and asthmatic affections, attended with *viscid* phlegm, and in dropsical complaints.—(*See* OXYMEL OF HEDGE HYSSOP, and OXYMEL OF THE COLCHICUM SEEDS.)

The squill pill, combined with calomel, is an efficacious and valuable remedy for dropsy, either of the chest, belly, or extremities, in the proportions recommended for dropsy.

No. 46. APERIENT PILL. — This composition is introduced in the place of the compound colocynth pill, on account of being a more active aperient, and much more efficacious in carrying off bile and slime from the stomach and intestines. It likewise affords an excellent purgative medicine for head-ache, arising from a determination of blood to the brain, and especially when the consequence of a suppression of the piles or periodical secretion, which it will often succeed in restoring. It is also a valuable aperient medicine in cases of periodical eruptions of the skin, or those cutaneous complaints which are attributed to foulness of the blood, and in cases of gout. One great recommendation of these pills is, they do not irritate the rectum. The increase of diseases of the rectum has been very justly attributed, by a late writer, to the irritation occasioned by popular antibilious remedies, the basis of which is aloes.

The dose is from two to three pills, which may be taken once or twice a week.

These pills having been first prescribed by Dr. Dick, an eminent physician of Bengal, in cases of what are termed *bilious* attacks, are generally sold under the name of the "*Bengal Antibilious Pills.*"*

No. 47. LENITIVE ELECTUARY.— This composition of senna, cassia powder, pulp of tamarinds, and of figs, &c., has been long esteemed as a convenient and gentle laxative medicine for habitual costiveness, piles, &c. It may be taken to the extent of a tea-spoonful occasionally. — (*See* ELECTUARY for the PILES.) —A great objection to this composition is, the liability of the figs, prunes, &c., to ferment in the stomach, the consequences of which are the production of an acid, flatulence, and griping pains. This composition is so much disposed to fermentation, that it is seldom to be obtained free from acid. As a mild aperient it is very inferior to the alkaline extract of jalap.

The new name for this electuary is *Confection of Senna* (*Confectio Sennæ*).

No. 48. PERUVIAN BARK. — Three species of this bark are made use of in this country, viz. the pale, the red, and the yellow, which are promiscuously administered, from a scruple to a drachm, every hour, in fevers of the intermittent class, commonly called agues, with equal advantage. Some practitioners recommend the red, when it can be obtained genuine: but through the great difficulty in procuring the true sort, the pale has latterly had the preference. If the full dose disagree with the stomach and bowels, so as to produce vomiting or looseness, three or four drops of laudanum should be given with every or

* At the Medical Hall, 170. Piccadilly.

every other dose, and two or three grains of Jamaica ginger, or five of cinnamon powder, if it oppress the stomach.—(*See* TONIC POWDER.)— The powder may be taken either in camphorated julep or peppermint-water; or, in order to cover its ill taste, to which some people have an almost invincible dislike, in an infusion of liquorice root, or in milk, as recommended by Dr. Lind, which generally answers best. It should be swallowed immediately after it is mixed, otherwise the flavour of the bark will be imparted to the milk.

When the bark, in powder, cannot be made to stay on the stomach, the Essential Salt of Bark, No. 24., affords a very proper substitute, and may be employed with equal advantage. During the hot fit of an intermittent, it may be given with a table-spoonful of Mindererus's spirit.

In urgent cases of intermittent fever, Dr. Cullen and Dr. Lind advise the bark in powder to be given in the dose of a drachm and a half to two drachms every hour. The stomach, however, must be a guide, and as much as it will bear may in general be given with propriety; for, as Torti and other celebrated writers have inculcated, the *larger* the dose, and the *quicker* the repetitions of it, the greater is the power of the medicine in stopping the paroxysms of ague, and the less of it is found to be taken in the end; whereas it has been observed, that when given in small doses, and at long intervals, the sum of the whole quantity taken has been much more considerable, yet it has not produced the desired effect.— (*See* AGUE.)

The Peruvian bark, as a strengthening medicine, was some years ago more generally prescribed than any other of the class of tonics. In mortifications, *putrid* sore-throat, and *malignant* fevers, it is still often exhibited, from twenty to forty grains, every two or three hours, in a glass of Port wine, or camphorated julep. In a great variety of diseases, as St. Vitus's dance, scrophula or king's evil, rickets, nervous irritability, indigestion, hysteric fits, and dropsy, it is likewise administered with great advantage with such combinations as predominant symptoms may indicate. When the bark is entirely nauseated from irritability of the stomach, or from an aversion of the patient to the taste of the medicine, it will be proper to administer it clysterwise, in the quantity of two or three drachms in half a pint of beef tea every three hours, in which form it often proves as efficacious as when taken by the mouth.

In cough, asthma, consumption of the lungs, and difficulty of breathing, the bark should not be employed unless sanctioned by an experienced practitioner.

The decoction of bark is made by boiling one ounce of bruised bark in a pint and a half of water, in a close-covered

vessel for ten minutes. The liquor should be strained, while hot, through a coarse strainer: for if suffered to stand till cold, the most efficacious part of the bark (the resin) will subside. An infusion, both in boiling and cold water, has been recommended in preference to the decoction, on the supposition that the volatile and most active parts escape by boiling; but if a close vessel be employed, this objection is removed. — (*See* DECOCTIONS and INFUSIONS.)

The rhatany root is, in many respects, a better tonic medicine than the Peruvian bark; and in the cure of intermittents, and the treatment of diseases that require the use of a strengthening medicine, it has proved more successful. It is also less disagreeable to the palate. — (*See* AGUE, and RHATANY ROOT.)

Although the Peruvian bark is termed a *febrifuge* medicine, we are not by it to understand that it is proper in *all* fevers. Indeed it is only in the intermittent class, where there is a complete intermission, that it has been administered with evident advantage; and even when those cases are attended with much visceral obstruction or local plethora it will prove injurious. (*See* AGUE.) In inflammatory fevers, or fevers attended with local inflammation, it is decidedly very improper; and even in mortifications attended with a quick pulse, or feverish state of the system, it is inadmissible. When we say, likewise, that it is more or less employed in cases of scrophula, rickets, St. Vitus's dance, &c., it is to be understood, that the system is free from fever, and the stomach and bowels in a proper state for its exhibition; for these diseases often occur in inflammatory subjects, where the Peruvian bark would be injurious. About twenty years ago the Peruvian bark, with Port wine, was highly extolled as a remedy for typhus fever, but of late years it has fallen into disrepute in such cases, no doubt in consequence of its injudicious exhibition. It is only in the advanced stage of typhus, when the vital powers are giving way, or have given way to a considerable extent, that this medicine should be administered, and in such case, by supporting the vital powers till the fever has run its course, and the diseased cuticle of the tongue, gullet, &c., has separated, it no doubt is, with wine, a most valuable remedy. In the first stage of typhus fever, which is inflammatory, and frequently attended with local inflammatory excitement, often rendering topical bleeding necessary, it is clearly improper. Indeed it may be said, notwithstanding this medicine has been so much extolled as a febrifuge, that it has proved chiefly serviceable in cases of convalescence after acute disease; when, no doubt, by invigorating the stomach, it will hasten the recovery of the patient. In cases of debility, induced by local diseases, as ulcers

with great discharge, &c., it is also a good strengthening medicine.

A preparation of bark, termed the sulphate of quinine, has lately been highly extolled as a remedy for tic douloureux, ague, and cases of debility, by some eminent physicians of the Continent, but on account of its not containing the astringent principle, it is not so efficacious as the salt of bark. — (*See* SULPHATE OF QUININE, and TONICS, p. 49.)

The new name for Peruvian bark is *Cinchona* (*Cortex Cinchonæ*).

No. 49. JAMAICA GINGER — has lately been much extolled as a remedy for gout, indigestion, and flatulence, in the dose of twenty grains to a tea-spoonful in any common vehicle; and where the use of a warm stomachic is required, it is no doubt a valuable medicine. Ginger, finely powdered, taken in tea or milk, warms and invigorates the stomach, without heating the body or accelerating the circulation; hence it has proved serviceable in shortening a fit of the gout, and its continued use has in many instances prevented its recurrence, probably by promoting digestion, and counteracting the debilitating and other injurious effects of the too free use of vinous or spirituous liquors. Ginger, although pungent to the taste, often allays the irritation of piles, in languid patients or elderly subjects, and speedily removes them; and has succeeded in many distressing affections of the rectum or great gut, arising from chronic inflammation, probably by increasing the secretion of mucus from its internal surface. In cases of indigestion, its effects are more permanent when combined with a bitter, as the Tincture of Ginger and Camomile, No. 7. In erysipelatous habits, ginger powder is apt to aggravate irritative affections of the rectum and bladder, and even to excite erysipelatous inflammation in the eyelids, and other parts of the body.

No. 50. SENNA LEAVES. — In domestic medicine senna leaves have been long employed as a purgative for children. It is customary to disguise its flavour by infusing two drachms, with a little bohea tea, in a quarter of a pint of boiling water, and adding, when poured off clear, a little brown sugar and milk. The ill taste of the senna may thus be so far covered, that children will not discover it; a few coriander or caraway seeds may also be added, to correct its griping quality, Senna is not so efficacious a purge for children as the basilic powder, which has likewise the great advantage of removing slime and destroying worms. — (*See* ALKALINE EXTRACT OF JALAP.)

To adults, senna is generally given in conjunction with other purgative medicines, as the aperient mixture, No. 62.

No. 51. MANNA — is chiefly used as an ingredient in making a purgative mixture, the recipe for which is given under the head of aperient mixture.

Manna being very subject to generate acidity and gas in the bowels, is by no means so good a purgative medicine for infants, as rhubarb combined with magnesia or the basilic powder.

No. 52. GUM ARABIC. — A solution of this gum in the proportion of one ounce in a pint of common or barley water, taken to the extent of a tea-cupful, furnishes a very excellent lubricating beverage, in cases of inflammation of the kidneys or bladder, bloody urine (arising from gravel or other causes); and when the natural mucus of the intestines is abraded, as in cases of dysentery and violent looseness. With the addition of nitre, it will prove very serviceable in strangury and heat of urine. (*See* ATTENUANTS, p. 16. DEMULCENTS, p. 22. DIURETIC POWDER).—As a pectoral drink in cases of pleurisy, gum arabic (in the proportion of two or three drachms to a pint) is a valuable addition to the compound barley-water, directions for making of which are given in the Appendix.

The new name for this gum is *Acacia Gum* (*Gum Acaciæ*).

No. 53. PURIFIED NITRE. — This salt possesses a cooling quality, and in the dose of six or ten grains, dissolved in water, Mindererus's spirit, or camphorated julep, quenches thirst, abates febrile heat, and quiets the circulation. It is likewise very efficacious in strangury. Its effects in cases of inflammation of the lungs, kidneys, bladder, &c., I have particularly noticed under the head of REFRIGERANTS, p. 38.

A solution of nitre in water, in the proportion of half a drachm to half a pint, is a good gargle for dispersing inflammation of the throat and mouth; but a few grains gradually dissolved on the tongue, and swallowed with the saliva, generally answer in such cases much better. — (*See* DISCUTIENT GARGLE.)

The new name for nitre or saltpetre is *Nitrate of Potash* (*Nitras Potassæ*).

No. 54. CREAM OF TARTAR — is a mild and cooling aperient, and deservedly much employed as an alterative medicine for children, in the inflammatory eruptions of the skin, which appear in spring or summer. The customary addition of an equal quantity of sulphur to it, in cutaneous affections, is very judicious.

The most convenient and pleasant method of giving cream of tartar and sulphur to children, is the form of an electuary (made with a sufficient quantity of honey,) of which a tea-spoonful may be given every morning with a draught of sassafras tea; if it should not operate sufficiently on the bowels, half a drachm of

jalap powder may be added to an electuary of an ounce of flowers of sulphur, and the same quantity of cream of tartar.

Cream of tartar is much recommended by Professor Home, as an active and efficacious purge in dropsical complaints: it has not succeeded so well in these cases as the basilic powder, which produces copious discharges from the system, without occasioning the debility which commonly follows large doses of cream of tartar.

The acid beverage so much used in hot climates under the name of *imperial drink*, to cool the body and quench thirst, is made with cream of tartar in the following manner: — Take of cream of tartar three drachms, and the rind of one lemon: pour on them (in an earthen vessel) one quart of boiling water, and, when cold, add a sufficiency of white sugar to render it agreeable to the palate.

Cream of tartar in powder is sometimes adulterated with sulphate of potash, which may be detected by pouring on half an ounce of the suspected cream of tartar two or three ounces of pure water, shake the mixture frequently, and let it stand one hour: the sulphate of potash being more soluble than the cream of tartar, will be taken up, and may be known by the *bitter* taste of the solution. — (*See* ANTACIDS, ANTALKALINES, p. 6. & 7.)

The last new name for cream of tartar is *Supertartrate of Potash* (*Supertartras Potassæ*).

No. 55. WASHED SULPHUR. — This preparation is better known under the name of the flowers of sulphur. In the dose of half a drachm to a drachm, it operates as an aperient medicine, and, by increasing the insensible perspiration, has proved of great utility in cutaneous obstructions and foulness. It is given with advantage in conjunction with cream of tartar. (*See* No. 54.) It is a mild aperient, and, in consequence of its operating without exciting heat or irritation in the bowels, it is generally preferred in piles. When the bowels are confined, it will be necessary to add a proportion of the lenitive electuary, to which a little nitre will prove serviceable, if the piles be attended with inflammation. — (*See* PILES, No. 85.) — The sulphureous aperient salt (*See* APPENDIX) affords an excellent substitute for this composition, and in cases of inflammation is entitled to the preference.

In *chronic* rheumatism and gouty affections of the joints, unattended with fever, a tea-spoonful of flowers of sulphur, with ten grains of Jamaica ginger powder, taken every morning in a glass of milk, has proved an excellent remedy.

An ointment made of one ounce of flowers of sulphur, four ounces of hog's lard, and four drachms of saturated solution of sal ammoniac, is an efficacious remedy for the itch, and much safer

than mercury: the internal use of sulphur is at the same time proper. — (*See* ANTIPSORIC OINTMENT, and LOTION.)

Sulphur, although apparently a medicine of no considerable efficacy, has the property of restraining the action of some of the most powerful poisons. Mercury, by an admixture with it, is almost rendered inert; thus, Æthiop's mineral, which is composed of equal parts of flowers of sulphur and mercury, may be given to the extent of sulphur alone, without manifesting any further effects on the system than might be expected from the exhibition of sulphur; when mercury, therefore, has exceeded in operation, sulphur is employed to abate the effects. Even the corrosive poison, arsenic, by the addition of sulphur, becomes almost innocent; but, for counteracting the effects of mineral poison when taken into the stomach, the liver of sulphur will answer best, on account of its solubility in water, and its more rapid action on them.—(*See* TREATMENT of MINERAL POISONS.)

Washed sulphur is a very mild aperient, and is generally presented more to obviate costiveness, or to produce soft fæces in cases of piles, &c., than as a purgative. In elderly people, or in leucophlegmatic habits, it often keeps up an annoying flatulent grumbling in the intestines, and very unsatisfactory flatulent motions, which, by disordering the digestive organs, reduce the strength of the system.

The preparation of sulphur, termed (from its colour) *milk of sulphur*, so far from possessing any advantage over the flowers or washed sulphur, is certainly less efficacious, the peculiar properties of the sulphur being impaired by the process employed for making it.

The new name for flowers of sulphur is *Sublimed Sulphur* (*Sulphur Sublimatum*).

No. 56. COURT PLASTER. — This well-known plaster is a useful application for recent *superficial* cuts, to keep the edges in contact, and defend them from the action of the atmospheric air, &c. If the wound be deep, or attended with much irritation, or the part be bruised, the diachylon plaster, spread on leather or black silk, will answer best.—(*See* CUTS.)

No. 57. LINT. — This is a very useful article in a medicine chest, for the purpose of dressing and cleaning sores or ulcers. When applied dry, it will destroy fungous flesh, and with a little pressure stop the bleeding of superficial wounds, and the punctures of leeches.

No. 58. DIACHYLON PLASTER, — spread on leather, is a common and good application for slight contusions, excoriations of the skin, chilblains, corns, and fresh cuts.

No. 59. GUM PLASTER — Is a useful application, spread on leather, for promoting the suppuration of boils and abscesses.

No. 60. PREPARED NATRON. — This salt dissolved in pure water, in the proportion of three drachms to a pint, forms a valuable alterative medicine; and in the dose of a wine-glassful two or three times a day, will prove highly beneficial to children affected with scrophula, rickets, scald-head, cutaneous eruptions, and acidity in the stomach.—(*See* RICKETS and SCROPHULA.)—A weak solution, as one ounce in ten pints of water, super-saturated with fixed air by Nooth's machine, is sold under the name of soda-water, and much recommended as a remedy for stone and gravel. When this water disagrees with the stomach, pills of dried sub-carbonate of soda and Castile soap afford a good substitute.—(*See* ANTILITHIC PILLS.) — When this article is completely neutralised with the carbonic acid, it is termed carbonate of soda, four drachms of which dissolved in a quart of water is superior *as a medicine* to the soda-water. The article sold in this country under the title of *soda-water*, is generally made with the carbonate of potash and oil of vitriol; and as a cooling beverage in summer it may answer as well as the true soda-water; but in its *medicinal* properties it is very different, and in cases of stone or gravel will prove of no utility.

Prepared natron is a medicine of great power in the cure of many constitutional diseases; and although slow, is a more certain alterative in complaints of long standing than those of a more active kind. Its *continued* use has, in many instances, succeeded in dispersing scirrhous or cancerous tumours, and in the cure of obstinate cases of scrophula, after mercury and other more active alterative medicines had failed. When gout is attended with acidity in the stomach, it is a valuable palliative.—(*See* GOUT.)—To children, the solution of it in water, as recommended above, may be conveniently given in milk. — (*See* LIME-WATER and RICKETS.) — The new name of prepared natron is *Subcarbonate of Soda* (*Sodæ Subcarbonas*).

Within the last two years iodine has been much employed as an anti-scrophulous medicine in preference to prepared natron. In some chronic cases of scrophulous tumefactions it has succeeded, but, generally speaking, a solution of prepared natron in an infusion of Peruvian bark has proved more successful in correcting the scrophulous habit.—(*See* ALTERATIVES, p. 3. IODINE and SCROFULA, ANTACIDS, p. 6. ANTALKALINES, p. 7.)

LAVEMENT BAG. — The use of this machine is to inject into the rectum a fluid, for the purposes of hastening the operation of an aperient medicine taken by the mouth, of allaying irritation, of procuring evacuations when the stomach will not bear an aperient medicine, and of supporting the strength of a patient when nutriment cannot be introduced into the stomach. — (*See* LAVEMENS, and the LAVEMENT APPARATUS at the end of the APPENDIX.)

PROBANG. — This instrument is used for the purpose of removing from the gullet any article that may be lodged in it; as a pin, bone of a fish, &c. The sponge at the end should be moistened by immersion in warm water before it is introduced. (*See* SUBSTANCES lodged in the GULLET.)

It is also of great service in hastening the operation of an emetic in cases of a deleterious article being swallowed, by irritating the gullet, &c. (*See* EMETICS, p. 30.)

PRESCRIPTIONS.

FOR this important department of a Domestic Dispensatory, I have been very particular in selecting the prescriptions of eminent physicians and surgeons, the efficacy of which, in the cure of the diseases for which they are recommended, has been fully ascertained by long experience.

The reader must bear in mind that the different stages of diseases very often require different modes of treatment, and the remedies which have succeeded in the last stage, especially when the constitution had been shaken, or the general strength considerably reduced, would have acted injuriously, had they been given during the first stage. Diseases are also modified by peculiarities and temperaments of the body: indeed, in the treatment of acute diseases, so much depends on constitution, that in the leucophlegmatic habit, even remedies may be necessary, which in the sanguinous habit would aggravate the complaint. It is, therefore, obvious, that it is impossible to give prescriptions for the cure or relief of a disease under all circumstances. In the employment of the local or external remedies, attention should also be paid to the general health, particularly to the stomach, intestines, and sanguiferous system. The diet in all cases of disease should be such as the state of the constitution may indicate, and should as much as possible act as auxiliaries to the medicinal agents. These circumstances would militate against domestic medicine, if medical men were to attend to them; but the fact is, patients are better acquainted with their own temperaments and peculiarities than their medical advisers, and but too many practitioners adopt the same treatment of a disease, without any regard to its stage and other circumstances.

It is customary for chemists and druggists to charge a half-pint mixture or lotion, compounded according to a prescription, at the rate of half-a-crown or three shillings, a box of pills two shillings, and a draught one shilling, although the ingredients, if charged separately, would not amount to one-

sixth of such prices. Apothecaries who make no charge for attendance are doubtless entitled to a good profit from their medicines; but druggists or chemists, whose time is not occupied by attendance on patients, have no right to make such exorbitant demands. At the Medical Hall, Piccadilly, the component parts of a medicine, made according to a prescription, are charged separately, and being compounded with the most scrupulous exactness, and with genuine drugs of the finest quality, the most implicit confidence may be placed in them.

INTERNAL REMEDIES.

BOLUSES. — The form of medicine termed a bolus is generally composed of powders formed into a mass with honey, syrup, or mucilage. By some practitioners it is considered a good form for such ponderous articles as calomel, oxide of bismuth, &c., which cannot be properly suspended in a thin vehicle. Some patients, on account of its consistency, can take medicines in this form, who cannot swallow a pill; and it has the advantage of operating more quickly than a pill, on account of being more readily mixed with the contents of the stomach. Of late years this form has nearly fallen into disuse.

ASTRINGENT BOLUS.

(A)

Take of Prepared Chalk, 1 scruple.
Cinnamon Powder, 5 grains.
Gum Kino do. 4 grains.
Opium do. ½ a grain.
Mucilage of Gum Arabic, a sufficient quantity to form a Bolus.

To be taken three or four times a day. In cases of chronic looseness of long standing, a wine glassful of the decoction of Rhatany Root may be taken with each Bolus. This Bolus was a favourite remedy for chronic looseness with the late Dr. Fothergill of London, and the late Dr. Campbell of Hereford.

Or, (B)

Take of Alum in Powder, 12 grains.
Japonic Earth do. 5 grains.
Cinnamon Powder, 4 grains.
Conserve of Roses, sufficient to form a Bolus.

To be taken three times a day, with a wine glassful of Simple Infusion of Roses or Peruvian Bark. This Bolus was frequently prescribed by the late Dr. Osborne and Dr. Clarke, in cases of flooding from relaxation or debility.

CALOMEL BOLUS.

Take of Prepared Calomel, from 4 to 6 grains.
Conserve of Hips, sufficient to form a Bolus.

This Bolus is generally given at night, and if it should not sufficiently act on the bowels, an aperient draught the following morning. In cases of worms and obstructions in the liver, it is a common practice to give a full dose of Calomel at bed-time, and an active purgative draught, as Infusion of Senna, the following morning.

CHALYBEATE BOLUS.

Take of Carbonate of Iron, ½ a drachm.
Conserve of Orange-peel, and Simple Syrup, of each a sufficient quantity to form a Bolus.

This composition has been very successfully administered three times a day, in Tic Douloureux. Mr. Hutchinson, who first recommended it for the cure of this disease, directs the Carbonate of Iron to be gradually increased to one drachm.

SUDORIFIC BOLUS.

Take of Guaiac Gum Powder, 10 grains.
Ipecacuan do. 2 grains.
Flowers of Sulphur, 15 grains.
Laudanum, 8 drops.
Mucilage of Gum Arabic, sufficient to form a Bolus.

This is a valuable remedy, taken at night, for Chronic Rheumatism, and also for Acute Rheumatism in elderly subjects. It is an improvement on what is termed the Chelsea Pensioner's Specific.

VERMIFUGE BOLUS.

Take of Basilic Powder, 1 scruple.
Conserve of Wormwood, sufficient to form a Bolus.

To be taken at bed-time. This was a very favourite remedy with the late Dr. Campbell of Hereford, and Dr. Cheston, of Gloucester, for the expulsion of worms from the alimentary canal.—See BASILIC POWDER.

CLYSTERS OR LAVEMENS. — The term lavement, or clyster, signifies any liquid medicine injected into the rectum, or great intestine. This form of medicine, although much employed on the Continent, has not met with that attention in England, to which its importance entitles it, partly through the antipathy of patients, but principally on account of the difficulty of procuring a person to administer it properly. To render this mode of exhibiting medicine more popular, several instruments have been lately invented, to enable a person to administer a lavement to himself with facility.*

The lavement is used for the same purposes as mixtures. Thus, in cases of costiveness, it not only softens the fæces collected in the lower intestine (often the cause of costiveness), but also, by stimulating the rectum, &c., occasions purging. In cases of obstinate costiveness, or obstructions in the bowels, a lavement accelerates the operation of purgative medicines taken by the mouth. In cases of violent diarrhœa, dysentery, and the purging of children, a lavement of vegetable jelly (as starch or arrow-root, to which laudanum may be added, in case of violent pains or irritation) is a most important remedy. The Peruvian bark may also be exhibited this way to a patient whose stomach will not bear it, in intermittent fevers, and also laudanum, in acute pain in the bowels.

Clysters are likewise used as a fomentation in cases of inflammation of the bladder, womb, or bowels: and for nourishing the body when the stomach will not retain food, or the patient is not able to swallow it, through inflammation of the throat, or obstruction in the gullet.

In no part of the world is the class of remedies termed lavements or clysters so seldom used as in England. In France and Italy the lavement apparatus is deemed as necessary an appendage to the toilet as the tooth-brush, bottle of odoriferous essence, or water-jug, it being common in that country for males and females to take a clyster every forenoon. It has been said, and perhaps with truth, that the females of France are more

* These machines may be seen and obtained at 170, Piccadilly. (*See* description of apparatus for medical purposes, at the end of this Dispensatory.

healthy than those of Great Britain; which is attributed by a late writer to their keeping "the intestinal canal in a regular state, by the occasional and almost daily exhibition of a domestic clyster." The difference of the climate, and the small quantity of vinous and spirituous liquors the French are in the habit of taking, and the frivolity of their minds, may account in a great measure for their being more free from disease than the English. That many formidable maladies may be fairly imputed to constipation, we think no practitioner of experience will deny. For our own part, we are satisfied that if the lower portion of the alimentary canal does its duty, the upper portions, as stomach and duodenum, will do theirs. Experience has convinced us of the fact, that if an invalid from indigestion will take care of the colon and rectum, so as not to allow them to be overloaded, and keep up the secretion of the colon, the stomach, duodenum, and liver will take care of themselves. On taking the office of the colon, in the animal economy, into consideration, the class of remedies termed clysters is a most important one. In my late treatise on the means of regulating the alimentary canal, in cases of constitutional constipation, and in various constitutions and predispositions, I have particularly noticed the cases in which clysters may be administered with great advantage. The following remarks on this class of remedies, from the pen of an experienced French physician, who has witnessed the effects of various clysters for fifty years, possess much very valuable practical information.

"The term clyster, or lavement, signifies all medicaments introduced in a liquid form into the large intestine (rectum). It is generally administered in a tepid state. When it is intended to operate immediately on the internal surface of the intestine, so as to allay inflammatory action or irritation, it is given cold.

"In administering a clyster, attention should be paid not only to the quantity but degree of temperature of the fluid; for if too abundant, by occasioning over distension of the rectum, it is apt to excite an unnecessary degree of irritation in the internal membrane of the intestine which receives it. In affections where the intestines are in a state of irritation, a stimulating clyster might produce much mischief. It must not be forgotten that a *simple* clyster ought to precede a stimulating one. By such practice the large intestines are disencumbered, and room left for the medicaments to operate on the upper portion of the intestinal canal. Clysters act on the interior of the rectum and colon, and their influence is afterwards extended to the small intestines.

"The advantage principally gained by this class of remedies is the evacuation of the fæcal matter contained in the large intestines. Warm water is sufficient to produce this effect; and it is generally this liquid which is used when we would only empty

the colon and rectum. The object of the medicinal clyster is a subsequent operation which requires great attention. The active principles of the articles which are contained in it provoke in the animal economy a series of effects, from whence are derived all the advantages which are obtained from this clyster.

" It is easy, by means of medicinal clysters, to provoke in the living system very diversified modifications. They promote the functions of the various organs, fortify the viscera, augment their vigour, and produce in them other beneficial effects, according to the tonic or exciting substances they contain, and according to their emollient or purgative virtue.

" Clysters are, in fact, purgative, emetic, tonic, exciting, diffusible, narcotic, laxative, and emollient. The first act briskly. They excite the mucous membrane lining the large intestines. They are particularly favourable to females, who, after having ceased suckling their children, wish to prevent a further secretion of milk. These clysters are sometimes prejudicial when considerable intestinal irritation exists, by occasioning inflammation of the bowels. The effects of the *emetic* clysters bear the greatest analogy to those of the purgative. The *tonic* clysters prepared with the vegetable substances, which contain the bitter and astringent principles, make upon the large intestines a more durable and deep impression than when taken into the stomach, being propagated over the whole alimentary canal, so as even to strengthen the digestive organs. This action of the medicinal agents is transmitted to the parts situated near the large intestines, and often speedily re-establishes the energy they had lost. The *exciting* clysters (composed of vegetable substances which contain sharp, aromatic, volatile articles, which ought not to be suffered to evaporate) act first upon the internal surface of the large intestines, and by invigorating the nerves of the viscera, they promote their functions. Their action renders them useful in chronic affections attended with general weakness, paleness of the skin, relaxation of the muscular system, in the flatulent colic dependent on relaxation or debility of the alimentary canal. The *diffusible* clysters, containing wine, spirit, &c., produce at first a kind of excitation in the intestinal canal; the activity of their principles is diffused over the system with an extreme promptitude, so as even to invigorate the brain. But when they are too much charged with these principles, the blood-vessels of the brain become over-distended, and, by compressing that important organ, occasion general debility, and produce, in fact, all the symptoms of intoxication. In colic occasioned by accumulation of gas, a diffusible clyster frequently relieves the patient instantaneously, by giving to the intestinal canal a shock which immediately establishes its peristaltic action. They combat likewise

with success the different accidents that chronic affections produce. We have prescribed in analogous cases camphorated clysters, which have had a wonderful effect.

" *Emollient* clysters are composed of gelatinous and oily articles, as the decoction of the roots and leaves of the marshmallow, linseed, barley, starch, calves' feet and flesh, hartshorn shavings, &c. In the exercise of our daily functions, these clysters do not create sudden changes worth noticing, but they ensure in all the organs a perfect abatement, which tends to lessen their activity, and which, in diseases caused by an excess of vital force, by a too great agitation of the blood, brings on a very remarkable calm. Very useful assistance is to be met with in all chronic affections, in a dry, irritable constitution; they agree with people who are subject to spasmodic affections within the abdomen; it is to them we must have recourse to combat active constipation, that is to say, that which retains an excess of heat or inflammatory excitement in the large intestines.

" We chiefly adopt the form of clyster termed *emollient*. It is eminently efficacious in promoting the operation of a purgative medicine, to prevent griping pain, and to render irritating matter which remains to be evacuated, inoffensive. Its laxative power moderates the intensity of diseased secretions, and concurs in leading to a favourable issue. Sydenham and the most eminent practitioners prescribed the use of it in similar circumstances.

" In the case of a continued constipation, it is an error to believe that a clyster produces the desired evacuation; for this remedy not attacking the seat of the malady, becomes useless and even dangerous, if too often renewed: thus it is better to abandon it in this case, and return again to purgation.

" We have very frequently observed clysters according to our prescription, that is to say, a simple decoction of linseed or bran, with the addition of eight or ten of Dr. Franck's tonic purgative pills dissolved in it*, to effect extraordinary cures in an infinity of diseases. This method of using the clyster should be adopted when the tonic purgative pills have not sufficiently evacuated the bowels. If, on the contrary, the evacuations are abundant, the emollient clyster may be employed with great advantage to dilute acrimonious matters, and protect the internal surface of the intestine from its stimulating action."

SIMPLE CLYSTER.

Take a pint of Cheese-whey or Butter-milk.

Or, (A)

About 2 tea-spoonsful of Soft Soap, dissolved in a pint of soft water.

These are administered lukewarm, to soften and remove hard faeces lodged in the rectum or colon.

LAXATIVE CLYSTER.

Take of Cheese-whey, Butter-milk, or de-

* These pills are noticed in the 116th Number of the Gazette of Health, page 239. Like the Scotch Pills, they are chiefly composed of aloes.

coction of Marshmallow leaves (fresh), 12 ounces.
Epsom Salt, from 6 drachms to 2 ounces.
or,
Castor Oil, 1 ounce.
Mix.

This composition is chiefly employed to obviate costiveness, or to hasten the operation of an opening medicine taken into the stomach.

PURGATIVE CLYSTER.

Take of Infusion of Senna, from 6 to 12 ounces.
Epsom Salt, from 6 drachms to 2 ounces.
Mix.

Or, (A)

Take of Socotrine Aloes in powder, 2 drachms.
Soft Soap, 3 drachms.

After mixing them together in a marble mortar, boil them gently in a pint of water for fifteen minutes, and then add Glauber's Salt, from six to 12 drachms.

Or, (B)

Take of Castor Oil, 2 ounces.
Spirit of Turpentine, 2 tea-spoonsful.
Gruel, half a pint.

These are prescribed in cases of obstinate constipation, when the rectum and colon are free from irritation or inflammatory excitement.

EMOLLIENT CLYSTER.

Take of Linseed Tea, from 8 to 12 ounces.
Cold-drawn Linseed Oil, from 2 to three ounces.

Or, (A)

Take of decoction of Marshmallow-root, from 8 to 12 ounces.
Olive Oil, or cold-drawn Linseed from 2 to 4 ounces.

Or, (B)

Take of Gruel or thin Starch, 12 ounces.
Olive Oil, or fresh Butter, from 2 to 3 ounces.

Or, (C)

Take of thin Hartshorn Jelly, 12 ounces.
Fresh Butter, 1 ounce.

These are employed in cases of costiveness attendant on piles, inflammatory action, irritation, ulceration or stricture in the rectum. The two latter are also exhibited two or three times a day, to nourish the body, when food cannot be introduced into the stomach. The first is a favourite remedy with Mr. Cline in irritative affections of the rectum and kidneys.

TONIC CLYSTER.

Take of Peruvian Bark in fine powder, from 3 to 6 drachms.
Gruel, ½ pint.

Or, (A)

Take of Decoction of Iceland Moss, from 8 to 12 ounces.
Peruvian Bark in powder,
Mix. 4 drachms.

Or, (B)

Take of Decoction of Peruvian Bark, from 8 to 12 ounces.
Starch powder, 3 drachms.
Mix.

Or, (C)

Take of Decoction of Bark, from 6 to 8 ounces.
Extract of Bark, 3 drachms.
Mix.

These have been found very beneficial in cases of debility, when the stomach was too irritable to retain a tonic medicine, and when the patient had not the power of swallowing, as in the putrid sore throat. They have also been administered, with success, in cases of intermittent fevers, attended with great debility and irritation of the stomach and bowels. It is worthy of notice, that in cases of intermittents and other diseases, in which the Peruvian Bark taken into the stomach excited nausea and purging, the clyster of the Decoction of Bark with the extract (the last formula), has generally quieted the stomach, and occasioned constipation. The composition of the decoction of Iceland Moss and Peruvian Bark (the second of the above formula), has been found very beneficial in cases of fluor albus and mucous discharge from the bladder, and in preventing miscarriage in those who are subject to it, between the second and third month of gestation. When the bowels are confined, or when the clyster occasions constipation, a little Epsom salt should be added. A tonic clyster is generally repeated twice a day.

EMETIC CLYSTER.

Take of Oxymel of Squills, 1 ounce.
Tartarised Antimony, from 4 to 8 grains.
Water, ½ pint.
Mix.

This composition, when injected at the temperature of one hundred degrees (Fahr.) often excites vomiting. It has been found beneficial in cases of hooping cough, and, it is said, very seldom fails in terminating a paroxysm of spasmodic

asthma. Some French physicians employ a decoction of tobacco, to excite vomiting or nausea; and others introduce a suppository of tobacco, both of which have produced an alarming degree of debility.

EXCITING OR STIMULATING CLYSTER.

Take of Infusion of Cloves, from 8 to 12 ounces.
Tincture of Galbanum, 4 drachms.
Mix.

Or, (A)

Take of Infusion of Horseradish, from 8 to 12 ounces.
Compound Tincture of Benzoin, 4 drachms.
Honey, ½ ounce.

Mix the compound tincture with the honey in a mortar, and then add, by degrees, the infusion. To be administered lukewarm.

Some French physicians add the Compound Spirit of Ammonia, and others the Sulphuric Ether, to the above formulæ; but the remedy being administered warm, they generally escape before the liquid is injected, and when particular care is taken to prevent evaporation, they often excite a distressing degree of irritation, frequently passing up the intestinal canal, so as to escape by the mouth with great rapidity. The exciting or stimulating clyster is employed in cases of debility of the muscles of the rectum and of the sphincter muscle of the bladder; the former occasioning a lodgment of fæces in the rectum, and the latter an involuntary escape of the urine. They are also employed to stimulate the nerves of the pelvis in cases of palsy, either of the bladder, rectum, or lower extremities; and of a species of local debility, very common among French debauchees.

DIFFUSIBLE CLYSTER.

Take of Barley Water, from 6 to 8 ounces.
Brandy, from 1 to 6 table-spoonsful.
Mix.

Or, (A)

Sherry or Madeira Wine, from 6 to 8 ounces.

The brandy should not be added to the barley water until the time of administering it, and the wine should be warmed, by placing it, secured in a bladder, in warm water, till it is about blood heat.

This lavement is only employed in cases of great prostration of strength, as the last stage of typhus fever and putrid sore-throat. In cases of suspended animation it is an important remedy.

NARCOTIC OR ANODYNE CLYSTER.

Take of Linseed Tea, Gruel, or thin Starch, from 6 to 8 ounces.
Purified Opium, from 2 to 6 grains.

Dissolve the purified opium in a little warm water, and then add it to the other ingredient.

This composition is employed in cases of irritation of the rectum and colon, of spasms in any part of the intestinal canal and of the uterus, of diarrhœa, dysentery, inflammation or irritation of the kidneys, bladder, and prostate gland, irritative ulceration of the rectum, a calculus lodged in a ureter, retention of urine from spasm or inflammation, &c. It has also been found very beneficial in allaying the nausea attendant on pregnancy. Some practitioners prefer an opiate suppository to this clyster; but in irritative affections of the rectum, or of parts in its neighbourhood, the latter is preferable on account of its also acting as a fomentation.

DIURETIC CLYSTER.

Take of Oil of Turpentine, from 3 to 6 drachms.
Linseed Oil, from 2 to 4 ounces.
Decoction of Marshmallow Root, 8 ounces.
Mix.

This is generally administered twice a day in cases of suppression or paucity of urine.

VERMIFUGE CLYSTER.

Take of Infusion of Indian Pink, 6 ounces.
Sulphate of Iron, from 4 to 10 grains.
Mix.

Or, (A)

Take of Peruvian Bark, in fine powder, 6 drachms.
Alcaline liquor of Iron, 3 drachms.
Liquor of Potass, 1 drachm.
Infusion of Wormwood or Rue, from 8 to 12 ounces.
Mix.

Or, (B)

Take of Infusion of Wormwood or Rue, 12 ounces.
Sulphuret of Potass, 20 grains.
Mix.

Or, (C)

Take of Olive Oil, 8 ounces.
Spirit of Turpentine, 1 ounce.
Mix.

Or, (D)
Take of Olive Oil, 8 ounces.
Essential Oil of Savin,
Essential Oil of Rue,
Essential Oil of Wormwood,
of each 30 drops.
Mix.

Or, (E)
Take of Olive Oil, 8 ounces.
Common Oil of Amber, or Oil of Hartshorn,
from 1 to 2 drachms.
Mix.

These lavemens have been highly recommended by several eminent physicians of France as a certain remedy for the species of worms, termed ascarides, which occupies the lower portion of the intestinal canal. An eminent physician of Italy informs me, that he found a lavement of Olive Oil a remedy not only for ascarides, but also for every other species of worm that forms in the intestinal canal, when taken to the extent of an ounce. Ascarides, for which the above lavements are recommended, are so enveloped in slime, that no oily substance injected into the rectum can come in contact with them. Previously to the use of an oily article, it is therefore good practice to carry off superabundant slime by the use of an active vermifuge purgative, as the Basilic Powder, or the Compound Powder of Scammony with Calomel, of the London Pharmacopœia, and a lavement of Sulphuret of Potass (a scruple) and Infusion of Wormwood and senna (a pint), the latter of which has been found very beneficial in removing slime from the rectum. This clyster I have lately found very efficacious in a case of St. Vitus's dance, which was evidently occasioned by ascarides in the rectum. In a most distressing case of ascarides, in an elderly gentleman, of long standing, the second of the vermifuge clysters (A) (Bark Powder, Infusion of Wormwood, and Sulphate of Iron) so completely succeeded in removing the cause, that, after persevering in its use a fortnight, he continued for many years free from the disease.

ANTI-INFLAMMATORY CLYSTER.

Take of fresh Rose Water, 8 ounces.
Pure water, 4 ounces.
Liquor of Acetate of Lead,
30 drops.
Mix.

Or, (A)
Take of Acetate of Zinc, 20 grains.
Rose Water, 3 ounces.
Pure Water, 4 ounces.
Mix.

The above (administered cold) are held in great estimation in cases of inflammatory piles and chronic inflammation of the mucous membrane of the rectum by several eminent surgeons. When the system is plethoric, abstraction of blood should precede the use of either of them.

ASTRINGENT CLYSTER.

Take of Alum, 30 grains.
Fresh Rose Water, 8 ounces.
Pure Water, 4 ounces.
Mix.

Or, (A)
Take of Infusion of Logwood,
8 ounces.
Alum, from 30 to 60 grains.
Tincture of Gum Kino,
3 drachms.
Mix.

Or, (B)
Take of Infusion of Logwood, 8 ounces.
Alum, from half a drachm to a drachm.
Mix.

Or (C)
Take of Lime Water, from 6 to 8 ounces.
Starch Jelly, 4 ounces.
Tincture of Gum Kino,
½ ounce.
Tincture of Opium, 40 drops.
Mix.

The above are recommended in cases of prolapsus of the anus and uterus, cases of piles from relaxation, passive discharge (excessive) of blood from the rectum or vagina, and also in active cases, after depletion, when the reduced state of the system renders the use of a topical astringent necessary. It is worthy of observation, that in cases of excessive discharge of blood from the uterus, prolapsus of the uterus, and relaxation of the vagina, an astringent lavement has proved more efficacious than an astringent vaginal injection. Some practitioners order the above remedies to be employed in a tepid state, and others in a cold one. The third of the above formula (C) is recommended in cases of obstinate chronic dysentery, or chronic diarrhœa. One half is directed to be carefully injected twice a day. When the parts are in a state of inflammatory excitement, they prove more beneficial when administered at the ordinary temperature of spring water. Remedies of this kind should only be employed in cases of active discharges of blood, under the superintendence of an experienced practitioner.

ANTISPASMODIC CLYSTER.

Take of Tincture of Assafœtida, 2 drachms.
Rectified Oil of Amber, 25 drops.
Fresh Butter, the size of a pullet's egg.
Gruel, ½ pint.
Mix well together.

This is chiefly employed in cases of violent hysterics, or when medicine cannot be administered by the mouth, and also for spasms in the bowels.

NUTRIENT CLYSTER.

Take of Beef or Mutton Broth, 1 pint.
Arrow-root, a dessert or table-spoonful.

Dissolve the arrow-root in the broth, in the usual way, and inject the above quantity (gently) lukewarm.

This lavement is employed in cases of great debility, or to support life, when the patient, from suppuration, ulceration, or stricture in the gullet or fauces, cannot swallow. Some physicians direct from a quarter to half an ounce of Peruvian Bark (bruised) to be boiled with the meat in making the broth, in cases of extreme debility from age, and when there is prolapsus of the rectum.

DRAUGHTS.—This is a proper form for administering such potent medicines in which the dose is to be given, and to be augmented with great nicety, as solution of arsenic, prussic acid, croton oil, acetate of morphine, &c.

ANTHELMINTIC DRAUGHT.

Take of Oil of Turpentine, from 3 to 6 drachms.
Croton Oil, from 1 to 2 drops.
Water, 2 ounces.

This draught should be swallowed as the oils swim on the water. It should be taken before breakfast, and the patient should continue in bed till it has operated on the bowels two or three times, to prevent its affecting the head. This is a very efficacious remedy for the tape-worm. — (*See* ANTHELMINTICS, p. 9.)

DIAPHORETIC DRAUGHT.

(A)

Take of Antimonial Wine, 30 drops.
Solution of Acetate of Morphine, 10 drops.
Camphorated Julep, 1 ounce.
Mix.

This is an efficacious sudorific draught in cases of inflammatory rheumatism, and catarrhal cough. In obstinate cases of acute rheumatism, from thirty to forty drops of the Tincture of Colchicum seeds may be added.

Or, (B)

Take of Volatile Tincture of Guaiac Gum,
Honey, of each 1 drachm.

Mix well together in a glass mortar, and add by degrees,

Ipecacuan Wine, 1 drachm.
Laudanum, 12 drops.
Camphorated Mixture, 1 ounce.

This is a very valuable warm sudorific draught, in cases of chronic rheumatism. It was a very favourite remedy with Dr. Blount of Hereford, in cases of chronic rheumatism, and even in acute, in elderly subjects.

ANTIASTHMATIC DRAUGHT.

Take of Ipecacuan Wine, 60 drops.
Prussic Acid, 1 drop.
Tincture of Colchicum Seeds, 30 drops.
Extract of Henbane, 4 grains.
Compound Spirit of Sulphuric Æther, 40 drops.
Camphorated Julep, 1 ounce.
Mix.

This draught, taken when symptoms come on indicating an approach of a paroxysm, will prevent its taking place; and, taken during the paroxysm, has often succeeded in terminating it in a few minutes. In obstinate cases it may be taken two or three times a day.

EMETIC DRAUGHT.

Take of Ipecacuan Powder, from 20 to 30 grains.
Emetic Tartar, 1 grain.
Water, 1 ounce.
Mix.

In cases of chronic cough, where the air vessels are loaded with mucus, or in cases attended with deficient expectoration, three drachms of Oxymel of Squills may be substituted for the Emetic Tartar.

ELECTUARIES. — An electuary is a form of medicine, of the consistency of honey, composed of powders, incorporated

with some syrup, or conserve, or honey. As a draught is a single dose of a mixture, so is a bolus a single dose of an electuary. As this form is much disposed to ferment, it should be kept in a cool place.

ANTHELMINTIC ELECTUARY.

Take of Granulated Tin, 4 ounces.
Carbonate of Iron, 1 ounce.
Conserve of Wormwood, 3 ounces.

Mix.

A large tea-spoonful to be taken every morning, with a draught of Lime Water.

This was frequently prescribed by the late Dr. Cheston of Gloucester, in cases of tape-worm, and the long round worm, after emptying the bowels by an active purgative, as the Basilic Powder. It was also a favourite remedy with Dr. Cameron of Worcester, and Dr. Blount of Hereford.

ANTIEPILEPTIC ELECTUARY.

(A)

Take of Peruvian Bark Powder, 1 ounce.
Valerian Powder, ½ ounce.
Granulated Tin, ½ ounce.
Simple Syrup, sufficient to form an Electuary.

A large tea-spoonful to be taken three times a day. Dr. Mead recommends an electuary similar to this as a remedy for epilepsy.

The following merits a trial: —

(B)

Take of Mistletoe Powder, 1 ounce.
Flowers of Zinc, 2 drachms.
Syrup of Rhubarb, sufficient to form an Electuary.

A large tea spoonful to be taken three times a day, with a wine glassful of Infusion of Valerian Root. — (*See* Antispasmodics, p. 12. and Epilepsy.)

ANTIRHEUMATIC ELECTUARY.

(A)

Take of Flowers of Sulphur, 1 ounce.
Cream of Tartar, ½ ounce.
Rhubarb Powder, 1 ounce.
Guaiac Gum Powder, 1 ounce.
Ginger Root Powder, 2 ounces.
Powdered Nutmeg, 1 ounce.
Honey, a sufficient quantity to form an Electuary.

A large tea-spoonful to be taken every night and morning with a tumbler of warm water.

This Electuary is the celebrated Chelsea Pensioner's Specific for gout and rheumatism. When the object is to correct the gouty habit, or to diminish constitutional predisposition to gout, at the period of the year when the patient generally experiences a paroxysm, the editors of the Gazette of Health recommend four drachms of the Carbonate of Soda to be substituted for the Cream of Tartar and the Rhubarb.

Or, (B)

Take of Flowers of Sulphur,
Flour of Mustard,
of each ½ ounce.
Honey or Treacle, sufficient to form an Electuary.

A large tea-spoonful to be taken two or three times a day.

This Electuary was the favourite rheumatic remedy of the learned Dr. Samuel Johnson. This and the preceding Electuary are proper only in cases of chronic rheumatism.

Or, (C)

Take of Gum Guaiac Powder, 1 ounce.
Factitious Cinnabar of Antimony, 6 drachms.
Conserve of Wormwood and of Roses, of each 1 ounce.
Oxymel of Colchicum, sufficient to form an Electuary.

A tea-spoonful to be taken twice a day.

This, with the substitution of Syrup of Ginger for the Oxymel of Colchicum, was highly esteemed by Dr. De Vallengen, as a remedy for chronic rheumatism, and is no doubt, in cases of long standing, entitled to the high character he has given it as an antirheumatic.

ANTITUSSIC LINCTUS.

Take of Spermaceti Powder, 2 drachms.
Oil of Almonds, 3 drachms.
Conserve of Hips, 1 ounce.
Syrup of White Poppies, 6 drachms.
Ipecacuan Powder, No. 23, 10 grains.
Diluted Vitriolic Acid, No. 18, 15 drops.

Mix.—A tea-spoonful to be taken every two or three hours, or when the cough is troublesome. — (*See* Oxymel of Colchicum Seeds and Lettuce Lozenge.

This composition is frequently prescribed for recent cough.

ANTIHÆMORRHOIDAL ELECTUARY.

Take of Flowers of Sulphur, No. *55*, 6 drachms.
Lenitive Electuary, No. 47, 2 ounces.
Nitre Powder, No. *53*, half a drachm.
Mix.

A tea-spoonful to be taken twice a day.

This is a very beneficial aperient medicine in cases of inflammatory piles attended with costiveness. The Anti-hæmorrhoidal Ointment should accompany its use.

TONIC ELECTUARY.

(A)

Take of Peruvian Bark Powder, 1 ounce.
Tartarized Iron, 3 drachms.
Cinnamon Powder, 2 drachms.
Conserve of Orange Peel, 1 ounce.
Syrup of Orange Peel, sufficient to form an electuary.

One or two tea-spoonsful to be taken two or three times a day with a wine-glass of water.

This is a very excellent strengthening medicine in cases of general debility; and especially when there is a tendency to dropsy, or what is termed a breaking up of the constitution.

Or, (B.)

Take of Rhatany Root Powder, 1 ounce.
Buchu Leaves Powder, half an ounce.
Carbonate of Iron, 2 drachms.
Conserve of Roses,
Conserve of Orange Peel, of each half an ounce.
Simple Syrup, sufficient to form an Electuary.

From one to two tea-spoonsful to be taken two or three times a day.

This is much recommended as a valuable tonic in cases of gleet and fluor albus, from relaxation, also local debility.

GARGLES. — A gargle is a liquid form of medicine used for washing the mouth or throat when inflamed, ulcerated, parched, or foul. — The quantity of two table-spoonsful is generally taken into the mouth, moved briskly about, and then spit out: or when the patient is not capable of doing this with any advantage, the liquor may be injected by a syringe, or applied by means of a sponge, secured to the end of a piece of whalebone. The use of a gargle should be repeated every hour in cases of ulceration or inflammation.

ANODYNE GARGLE.

Take of Decoction of Marshmallow Root, 6 ounces.
Borax, 2 drachms.
Solution of Acetate of Morphine, 40 drops.
Mix.

This is a very useful Gargle in cases of irritative ulceration of the soft palate, gums, or tongue. The late Dr. Cheston of Gloucester preferred the Decoction of Quince Seed to that of the Marshmallow Root.

ASTRINGENT GARGLE.

(A)

Take of Muriatic Acid, 30 drops.
Honey of Roses, 1 ounce.
Infusion of Sage, 7 ounces.
Mix.

This gargle was frequently prescribed by Mr. Allard at the Bristol Infirmary for inflammation of the throat and fauces.

Or, (B)

Take of Alum, 2 drachms.
Decoction of Oak Bark, 7 ounces.
Mix.

This is a powerful astringent Gargle, and was employed with great success by Mr. Allard of the Bristol Infirmary, and by Mr. Cam at the Hereford Infirmary, in cases of relaxation of the uvula and soft palate. — The following is used for the same purposes at St. Bartholomew's Hospital: —

Or, (C)

Take of Pellitory of Spain Root, bruised, half an ounce.
Water, ¾ of a pint.

To be boiled gently till reduced to half a pint, then strain off the liquor, and when cold add two drachms of Spirit of Hartshorn.

CAPSICUM GARGLE.

Take of Tincture of Capsicum, 2 drachms.
Barley Water, 7 ounces.
Mix.

This is a very favourite Gargle with some French surgeons in cases of inflammation of the tonsils, and also in cases of deafness arising from obstruction in the Eustachian tubes.

DISCUTIENT GARGLE.

(A)
Take of Red Rose Leaves, 3 drachms.
Infuse in a pint of boiling water till cold; then strain, and add
Diluted Vitriolic Acid, No. 18, 30 drops.
For inflammation of the tonsils and mouth.

Or, (B)
Take of Purified Nitre, No. 53, 1 drachm.
Gum Arabic, No. 52, 3 drachms.
Dissolve in half a pint of pure water.
To be used frequently for inflammatory sore-throat. — (*See* INFLAMMATION OF THE THROAT.)

Both these Gargles were recommended by Mr. Cline and Mr. Pearson to be frequently used in cases of simple inflammatory sore-throat.

DETERGENT GARGLE.

Add to the Discutient Gargle (A.)
Tincture of Myrrh and Honey, of each half an ounce.

This is a valuable Gargle in cases of the putrid ulcerated sore-throat, last stage of thrush, and foul ulcerations of the palate or gums. — When the ulcers are very indolent or syphilitic, two grains of the Oxymuriate of Mercury may be added.

MIXTURES.

The difference between this form of medicine and a julep is, that a MIXTURE is composed both of soluble and insoluble substances. As there is no regular measure for the dose of a mixture, many physicians give the preference to a draught, which is a single dose of a mixture. Patients often prefer this liquid form of medicine to either a pill, bolus, or electuary, and in general its operation is more speedy and effectual.

ABSORBENT MIXTURE.

(A)
Take of Magnesia, 2 drachms.
Dill Water, 2 ounces.
Mix. — From two to three tea-spoonsful to be given two or three times a day.

This is a valuable mixture for neutralising acid matter in the stomach of infants when the bowels are confined. If attended with griping pains, six or eight drops of Laudanum and ten grains of Rhubarb powder may be added.

If attended with purging, one drachm of prepared Chalk and a scruple of Salt of Wormwood may be substituted for the Magnesia. In cases of looseness attended with predominating acid and other consequences of indigestion, as flatulence, &c., a dose of Rhubarb powder (3 grains), and Calomel two grains, should precede the use of an absorbent. — (*See* ANTACIDS, p. 6.)

ANTIASTHMATIC MIXTURE.

(A)
Take of Oxymel of Colchicum Seeds, 1 ounce.
Compound Spirit of Sulphuric Ether, 3 drachms.
Camphorated Julep, 6 ounces.
Mix.—From two to three table-spoonsful to be taken three or four times a day.

In cases of Asthma, of young or nervous inflammatory subjects, this is a valuable medicine. If the system be plethoric, abstraction of blood from a vein should precede its use.

Or, (B)
Take of Paregoric Elixir, No. 11, 1 ounce.
Camphorated Julep, No. 28, 6 ounces.
Tincture of Assafœtida, No. 19, half an ounce.
Or Vitriolic Ether, No. 14, 3 drachms.
Oxymel of Colchicum Seeds, 1 ounce.
Mix.—Two table-spoonsful to be taken for chronic difficulty of breathing and *spasmodic* asthma unattended with fever. — (*See* ASTHMA.)

ANTACID MIXTURE.

Take of Magnesia, 1 drachm.
Prepared Natron, 1½ drachm.
Tincture of Lupulin, ½ ounce.
Dill Water, 7 ounces.
Mix. — This mixture, in the dose of three or four table-spoonsful two or three

times, is a very efficacious remedy for neutralising the acid in the stomach which occasions heartburn, and also for correcting the gouty habit. If it should operate on the bowels, the Magnesia should be omitted, and the quantity of Prepared Natron increased to two drachms and a half.

ANTIARTHRITIC MIXTURE.

Take of Volatile Tincture of Guaiac Gum, No. 20, 6 drachms.
Camphorated Mixture, No. 28, 6 ounces.
Tincture of Rhubarb, No. 4, ½ ounce.
Honey, ½ ounce.

Rub the Tincture of Guaiac Gum with the Honey in a glass mortar; then add the other articles by degrees. Two table-spoonsful to be taken every four or five hours.

This is a valuable remedy in gouty affections of languid or elderly subjects, especially when gouty pains are flying from one part to another, or when it is desirable to fix it in the feet. Some practitioners add to this composition about two drachms of the Tincture of Colchicum Seeds; but this article, by reducing the vital powers, is more likely to counteract its peculiar invigorating effects than to promote them.

The Tincture of Colchicum Root or Seeds acts beneficially only as a sedative aperient, and should only be given once a day, in cases of high inflammatory attacks in the extremities. If it be administered two or three times a day, it is very apt to keep up nausea, and a grumbling flatulent state of the intestines, which reduces the vital powers, and by converting regular, or what may be termed healthy gout, into irregular gout, often endangers life. As a corrective remedy for inflammatory, gout, or gout in an irritative nervous habit, the Antacid Mixture is the best, and the Colchicum Seed Wine may be taken with four or five grains of Blue Pill, at bed-time, as a sedative aperient.—(*See* GOUT.)

ANTIHYSTERIC MIXTURE.

Take of Tincture of Assafœtida, No. 19, 3 drachms.
Sal Volatile, No. 13, 2 drachms.
Camphorated Julep, No. 28, 6 ounces.

Mix.—Two table-spoonsful to be taken every three or four hours.

This is recommended by Dr. Fothergill and other eminent physicians, in cases of hysteric fits, in languid nervous habits. If the patient be plethoric, an active purgative dose, and even loss of blood, should precede the use of this medicine. —(*See* HYSTERIC PASSION.)

ANTIPERTUSSIC MIXTURE.

(A)

Take of Oxymel of the Colchicum Seeds, 1 ounce.
Prussic Acid, 5 drops.
Camphorated Julep, 4 ounces.

Mix. — A dessert-spoonful to be given two or three times a day.

This generally proves very efficacious in cases of hooping-cough in children of an inflammatory or excitable constitution, and during the first stage of the malady. When the disease has not been effectually arrested, and the general health is much reduced, the following mixture will prove more beneficial.

Or, (B)

Take of Ipecacuan Powder, No. 23, 10 grains.
Tincture of Assafœtida, No. 19, 1 drachm.
Laudanum, 10 drops.
Pure Water, 2 ounces.

Mix.—To a child of two years old, a tea-spoonful may be given every three hours, increasing ten drops for every additional year.—(*See* HOOPING COUGH.)

ANTIRHEUMATIC MIXTURE.

(A)

Take of Mindererus's Spirit, 3 ounces.
Colchicum Seed Wine, 3 drachms.
Solution of Acetate of Morphine, 30 drops.
Camphorated Julep, 4½ ounces.

Three table-spoonsful to be taken every four hours.

This is a very efficacious medicine in cases of acute rheumatism, in a person under the age of fifty, whose constitution has not been injured by excesses.

Or, (B)

Take of Volatile Tincture of Guaiac Gum, No. 20, ½ ounce.
Honey, ½ ounce.
Camphorated Julep, No. 28, 6 ounces.
Alkaline Tincture of Colchicum Seeds, 2 drachms.

Rub the Tincture of Guaiac Gum with the Honey, in a glass mortar, and add the other articles by degrees. Two table-spoonsful to be taken three times a day.

A similar composition was often prescribed by Dr. Lettsom, in cases of chronic

rheumatism or rheumatic affections in elderly subjects, and in general it has proved very beneficial, not only in removing pain, but in improving the general health. — (*See* RHEUMATISM.)

ANTISCROFULOUS MIXTURE.

(A)

Take of Essential Salt of Bark, No. 24, 2 drachms.
Muriate of Lime, 3 drachms.
Or Prepared Natron, 2 drachms.
Dissolve in a pint of Distilled Water; then add
Compound Tincture of Rhatany Root, No. 6. 1 ounce.

Or, (B)

Take of Decoction of Bark, 7 ounces.
Prepared Natron, 2 drachms.
Tincture of Cardamom Seeds, 6 drachms.

Mix. — Three table-spoonsful to be taken three times a day.

This last mixture is a favourite remedy for correcting the scrofulous habit with Dr. Symonds of Hereford. It was also the remedy generally prescribed by Dr. Blount of Hereford. The late Dr. Fothergill, and the late Dr. Lettsom, often prescribed it with the Blue Pill; and its continued use I have found morel beneficial in correcting the scrofulous habit, with the occasional use of the Blue Pill, and attention to the bowels, so as to obviate costiveness, than any other remedy. The following is preferred by Mr. Abernethy.

(C)

Take of Infusion of Cascarilla, 8 ounces.
Subcarbonate of Soda, 2 drachms.

Four table-spoonsful to be taken every day about two hours before dinner, and in the evening. Mr. A. also recommends 4 grains of the Blue Pill to be taken every night for a week.—(*See* ALTERATIVES, p. 3, and also IODINE and SCROFULA.)

ANTIPHTHISICAL MIXTURE.

Take of Balsam of the Sassafras Tree, 2 drachms.
Mucilage of Gum Arabic, 1 ounce.
Oxymel of Hedge Hyssop, 6 drachms.
Decoction of Iceland Moss, 6 ounces.

Three table-spoonsful of this mixture, to be taken three or four times a day.

This is a very valuable mixture in the stage of tubercular consumption, when the expectoration is mixed with a dark brownish matter offensive to the taste and smell. —(*See* TUBERCULAR CONSUMPTION).

ANTISPASMODIC MIXTURE.

Take of Ether, 2 drachms.
Sp. Sal Volatile, 1½ drachms.
Liquid Laudanum, 30 drops.
Camphorated Mixture, 6 ounces.

Mix.—Two table-spoonsful to be taken every three or four hours, for cramp in the stomach, and spasmodic colic.

This is a very efficacious remedy for spasms of the stomach; but in cases of colic it should not be administered till three or four evacuations have been procured from the bowels, by means of the Cathartic Mixture, Castor Oil, and the Aperient Lavement if necessary. — (*See* ANTISPASMODICS, p. 12, and COLIC.)

ANTITUSSIC MIXTURE.

(A)

Take of Ipecacuan Wine, 2 drachms.
Or, Ipecacuan Powder, No. 23, 10 grains.
Gum Arabic Powder, No. 52, 4 drachms.
Laudanum, No. 31, 20 drops.
Simple Oxymel, 1 ounce.
Almond Emulsion, 6 ounces.

Mix.—Two table-spoonsful to be taken every two hours, for recent cough, pleurisy, and inflammation of the lungs. In case of fever or a dry skin, the Tartarised Antimony Wine should be preferred to Ipecacuan.

In cases of chronic cough or winter cough of elderly people, attended with expectoration, without fever, the following mixture generally proves very beneficial in promoting expectoration, and in facilitating breathing.

Or, (B)

Take of Paregoric Elixir, 6 drachms.
Tincture of Squills, 3 drachms.
Spirit of Hartshorn, 3 drachms.
Emulsion of Gum Ammoniac, 7 ounces.

If this medicine produce nausea, the Tincture of Squills should be omitted.

This last mixture was a favourite remedy with the late Dr. Baillie and the late Dr. Warren, for chronic and asthmatic cough.

APERIENT MIXTURE.

(A)

Take of Epsom Salts, 6 drachms.
Infusion of Roses, 7 ounces.
Compound Tincture of Senna, 6 drachms.

Mix.—A wine glassful to be taken three times before breakfast, and to be repeated every four hours till it operates.

This mild Aperient Mixture was very frequently prescribed by the late Dr. Baillie, in cases of constitutional costiveness of young subjects, of spitting of blood, excessive monthly secretion of the uterus, and of indigestion from increased excitement of the stomach.

Or, (B)

Take of Senna Leaves, 2 drachms.
Infuse in a quarter of a pint of Boiling Water for half an hour, then strain, and add
Rochelle or Epsom Salts, No. 2, ½ ounce.
Compound Tincture of Senna, No. 8, 1 ounce.

Three table-spoonsful to be taken every two or three hours till it operates.

This is a more active aperient than the preceding mixture, and on this account preferable to it in cases of inflammation within the chest, and of fever.

The following is Mr. Abernethy's favourite Aperient Mixture, which he generally prescribes to be taken the morning after a dose of Blue Pill:

(C)

Take of Epsom Salt, ½ ounce.
Manna, 2 drachms.
Compound Infusion of Senna, 6 drachms.
Compound Tincture of Senna, 2 drachms.
Spearmint Water, 1 ounce.
Distilled Water, 2 ounces.

One table-spoonful to be taken the first thing in the morning.

The more active opening mixtures are noticed under the head of "*Purgative Mixture.*"

ASTRINGENT MIXTURE.

(A)

Take of Infusion of Roses, 6 ounces.
Tincture of Kino, 3 drachms.
Tincture of Cinnamon, 4 drachms.

Mix. — Three table-spoonsful to be taken three or four times a day.

This is commonly prescribed by the leading physicians and surgeons of London, in cases of flooding and excessive discharge of blood from the stomach or intestines, in relaxed or debilitated subjects. In obstinate cases, Dr. Campbell of Hereford added two drachms of alum to it.

Or, (B)

Take of the Compound Cretaceous Powder, No. 29, 2 drachms.
Gum Arabic Powder, No. 52, 3 drachms.
Laudanum, No. 31, 20 drops.
Pure Water, 6 ounces.
Essence of Cinnamon, No. 33, 40 drops.

Dissolve the Gum Arabic in an ounce of water, and rub it with the Compound Powder; then add the other ingredients.

Two table-spoonsful to be taken after every loose stool, in cases of diarrhœa or dysentery.—(*See* DIARRHŒA).

Or, (C)

Take of Extract of Rhatany, 2 drachms.
Compound Tincture of Rhatany, 1 ounce.
Lime Water, 6 ounces.

This is a valuable Astringent Mixture in cases of chronic diarrhœa of elderly people. In obstinate cases, two or three drachms of Tincture of Kino may be added, and if attended with irritation, twenty or thirty drops of Laudanum will prove an useful addition.

COUGH MIXTURE.

(*See* ANTITUSSIC MIXTURE).

CRETACEOUS MIXTURE.

(*See* ASTRINGENT MIXTURE.) (B.)

CAMPHORATED MIXTURE.

(*See* CAMPHORATED POWDER), fol. 76.

CAMPHORATED BARK MIXTURE.

Take of Essential Salt of Bark, No. 24, 1 drachm.
Dissolve in Camphorated Julep, No. 28, 6 ounces.
And then add, Sweet Spirit of Nitre, No. 15, 2 drachms.

Mix.—Three tablespoonsful to be taken every 2 or 3 hours, in low infectious fevers, putrid sore-throat, and mortification.

The bark thus associated acts, as M. Lassonne has observed, with more energy and force, when it is employed for the purpose of curing fever or gangrene; and this assertion Dr. Cullen believes, and experience has proved to be well founded.

DIURETIC MIXTURE.

(A)

Take of Liquor of Potass, 3 drachms.
Infusion of Buchu Leaves, 8 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This is a very efficacious remedy for red gravel, and for suppression or paucity of urine.

Or, (B)

Take of Tartaric Acid, 2 drachms.
Tincture of Lupulin, 4 drachms.
Infusion of Buchu Leaves, 7 ounces.

Mix. — Three table-spoonsful to be taken two or three times a day.

This mixture has been found very beneficial in cases of white gravel.

Or, (C)

Take of Tincture of Squills, 3 drachms.
Sweet Spirit of Nitre, 4 drachms.
Liquor of Potass, 2 drachms.
Infusion of Buchu Leaves, 7 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This is a powerful diuretic in cases of sluggishness of the kidneys or paucity of urine, attended with dropsical swellings, or a disposition to dropsy. When the system is much reduced, six drachms of the Tincture of Cascarilla may be added, and when it does not operate sufficiently on the kidneys, from one to two drachms of the Tincture of Foxglove.—(*See* DIURETICS, p. 25.)

GOUT MIXTURE.

(*See* ANTIARTHRITIC MIXTURE.)

HOOPING-COUGH MIXTURE.

(*See* ANTIPERTUSSIC MIXTURE.)

NERVOUS MIXTURE.

(A)

Take of Tincture of the Hibiscus Abelmoschus, 1 ounce.
Compound Spirit of Sulphuric Ether, 3 drachm.
Camphorated Julep, 6 ounces.
Mix.

This is a very excellent mixture to allay general nervous excitability, and to strengthen the whole nervous system.

Or, (B)

Take of the Tincture of the Hibiscus Abelmoschus, 1 ounce.
Compound Spirit of Ammonia, 3 drachms.
Compound Spirit of Lavender, ½ ounce.
Camphorated Julep, 6 ounces.

Mix. — Three table-spoonsful to be taken every three or four hours.

This is a valuable nervous cordial in cases of great nervous debility, attended with fainting, or a disposition to it.

Or, (C)

Take of Tincture of the Hibiscus Abelmoschus, 1 ounce.
Tincture of Lupulin, 3 drachms.
Liquor of Potass, 2 drachms.
Infusion of Buchu Leaves, 6 ounces.

This is a very valuable nervous stomachic medicine, in cases of general nervousness attended with indigestion, heartburn, and high-coloured urine, or inactivity of the kidneys.

Or, (D)

Take of Tincture of Musk Seed, 1 ounce.
Compound Spirit of Ammonia, (Edin. Pharmac.) 3 drachms.
Compound Spirit of Lavender, 4 drachms.
Compound Tincture of Rhatany, 1 ounce.
Infusion of Buchu Leaves, 6 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This powerful nervous tonic medicine is given in cases of general nervous and muscular debility, attended with depression of spirits. — (*See* NERVINES, p. 37.)

PURGATIVE MIXTURE.

(A)

Take of Epsom Salt, 6 drachms.
Infusion of Senna, 6 ounces.
Tincture of Senna, 1 ounce.
Syrup of Buckthorn, ½ ounce.

Mix. — Three or four table-spoonsful to be taken for a dose; and, if it should not operate in the course of three or four hours, it should be repeated in the dose of two or three table-spoonsful.

Or, (B)

Take of Castor Oil, 1 ounce.
Mucilage of Gum Arabic, 1 ounce.

When well mixed in a glass mortar, add gradually,

Infusion of Senna, 5 ounces.
Tincture of Jalap, 3 drachms.
Syrup of Buckthorn, 3 drachms.
Essence of Peppermint, 8 drops.

Mix. — From three to four table-spoonsful to be taken for a dose.

This very active purgative is generally administered in cases of obstinate constipation, or in the colic of painters. If it should not succeed, three or four drops

of Croton Oil may be added, and the laxative clyster administered.

SALINE MIXTURE.

(A)

Take of crystallized Acid of Lemon, 1 drachm.
Or fresh Lemon Juice, 1½ ounces.
Salt of Wormwood, No. 21. 1 drachm.
White Sugar, 3 drachms.
Pure Water, 12 ounces.
Essence of Peppermint, No. 32. 30 drops.

Mix.—A tea-cupful to be taken frequently in inflammatory fevers and sore throat. —(*See* No. 21. and 22.)

Or, (B)

Take of Mindererus's Spirit, 2 ounces.
Simple Syrup, 3 drachms.
Spearmint Water,
Common ditto, of each 3 ounces.

Mix.—This and the preceding Mixture are given in the dose of three to five table-spoonsful every three or four hours, in cases of inflammatory fever, inflammation of the throat, &c. The last Mixture is generally preferred when the skin is dry. For making the Effervescing Saline Mixture, *see* SALT OF WORMWOOD, p. 69.

STIMULATING MIXTURE.

Take of Horse Radish Root, sliced,
Mustard Seed, bruised, of each 1 ounce.

After being infused in a pint of boiling water in a gentle heat for twelve hours, strain off the liquor, and, when cold, add,

Compound Spirit of Lavender, 1 ounce.
Compound Spirit of Sal Volatile, 4 drachms.

Mix. — A wine-glassful to be taken three or four times a day.

This was a favourite remedy with the late Dr. Fothergill, Dr. Lettsome, Dr. Cheston, Dr. Blount, and other eminent practitioners, for paralytic numbness and chronic rheumatism in elderly subjects. —(*See* STIMULANTS, p. 45.)

STOMACHIC MIXTURE.

(A)

Take of Alkaline Tincture of Fumitory, 6 drachms.
Carbonate of Soda, 3 drachms.
Camphorated Julep, 6 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

Or, (B)

Take of Tincture of Lupulin, ½ ounce.
Carbonate of Soda, 3 drachms.
Camphorated Mixture, 7 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This and the preceding Mixture are valuable Stomachics, in cases of indigestion from nervous excitement, or morbid sensibility of the nerves of the stomach, or when attended with general nervousness, heartburn, &c.

Or, (C)

Take of Tincture of Musk Seed, 1 ounce.
Alkaline Tincture of Fumitory, ½ ounce.
Carbonate of Soda, 3 drachms.
Camphorated Mixture, 6 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This is a good stomachic medicine in cases of indigestion, attended with considerable nervous depression, to which nervous gouty subjects are particularly liable.

Or, (D)

Take of Infusion of Cascarilla, 6 ounces.
Carbonate of Soda, 3 drachms.
Tincture of Cardamom Seeds, 6 drachms.

Mix. — One half to be taken about an hour or two before dinner, and the other half about two hours after dinner.

This is Mr. Abernethy's favourite stomachic medicine.

Or, (E)

Take of the Essential Salt of Bark, No. 24. 1 drachm.
Dissolve in half a pint of distilled water; then add,
Tincture of Jamaica Ginger and Camomile, No. 7. 2 drachms.

Two or three table-spoonsful of this Mixture may be taken three times a-day. When acidity prevails in the stomach, two drachms of the Carbonate of Soda, No. 60., or a drachm of Magnesia, No. 1., may be added; or in cases of costiveness, unattended with acidity, two or three drachms of Epsom Salt.—(*See* TINCTURE OF FUMITORY.)

Or, (F)

Take of Compound Tincture of Rhatany Root, 1 ounce.
Spirit of Sal Volatile, 3 drachms.
Infusion of Buchu Leaves, 7 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This is an excellent stomachic medicine for indigestion of elderly people, or persons who have injured their constitutions

by continued abuses, and when swelling of the legs, general languor or depression of spirits, failure of memory, indicate a breaking up of the constitution.

Or, (G)

Take of Tincture of Musk Seed, 1 ounce.
Extract of Rhatany, 2 drachms.
Spirit of Sal Volatile, 3 drachms.
Compound Tincture of Bark, 6 drachms.
Compound Spirit of Lavender, 4 drachms.
Infusion of Buchu Leaves, 6 ounces.

Mix. — Three table-spoonsful to be taken two or three times a day.

This is a valuable cordial stomachic medicine in cases of indigestion, attended with considerable general debility, swelling of the legs, paucity of urine, &c.

SUDORIFIC MIXTURE.

(A)

Take of Mindererus's Spirit, 3 ounces.
Ipecacuan Wine, 1 drachm.
Solution of Acetate of Morphine, 20 drops.
Spearmint Water, 5 ounces.

Mix. — Three table-spoonsful to be taken every two hours till it produces perspiration.

This is a valuable Sudorific Mixture in cases of inflammatory fever, inflammation of the lungs, pleura, liver, and acute rheumatism. Some practitioners prefer Antimonial to the Ipecacuan Wine; but if the alkali of the Mindererus's Spirit predominate, which it frequently does, the Emetic Tartar of the Wine will be decomposed and rendered inert. If Antimonial Wine be ordered, a few grains of the Tartaric Acid should be added to prevent decomposition of the Emetic Tartar.

Or, (B)

Take of Volatile Tincture of Guaiac Gum, 4 drachms.
Honey, 3 drachms.
Dover's Febrifuge Powder, 2 scruples.
Decoction of Contrayerva Root, 7 ounces.

Mix. — After blending the Tincture and Honey in a glass mortar, add the other articles by degrees. Three or four table-spoonsful to be taken every night at bed-time.

This composition was frequently prescribed by Dr. Cheston of Gloucester, Dr. Campbell of Hereford, and by Dr. Fothergill of London, in cases of chronic rheumatism.

TONIC OR STRENGTHENING MIXTURE.

(A)

Take of Compound Tincture of Rhatany Root, 1 ounce.
Spirit of Sal Volatile, 3 drachms.
Infusion of Buchu Leaves, 6½ ounces.

Mix. — Three table-spoonsful to be taken three times a day.

This is an excellent tonic medicine in cases of general debility.

Or, (B)

Take of Extract of Rhatany, 1½ drachms.
Spirit of Sal Volatile, 3 drachms.
Alkaline Liquor of Iron, 4 drachms.
Infusion of Buchu Leaves, 7 ounces.

Mix.

This is a powerful strengthening medicine, in cases of general debility of the body, attended with edematous swelling of the legs, or occurring in a leucophlegmatic habit.

Or, (C)

Take of the Balsam of the Sassafras Tree, 3 drachms.
Mucilage of Gum Arabic, 1 ounce.
Extract of Rhatany, 1½ drachms.
Infusion of Buchu Leaves, 7 ounces.

Mix the Balsam with the Mucilage of Gum Arabic well together in a glass mortar, and then add by degrees the Extract dissolved in the Infusion; three table-spoonsful of this Mixture to be taken three times a day.

This is a very excellent remedy for fluor albus and gleet in languid or weakly habits. If the system be leucophlegmatic, three drachms of Alkaline Liquor of Iron may be added.

PILLS. — A pill is a form of medicine generally composed of drugs which operate in small doses, the nauseous and offensive taste or smell of which requires them to be concealed from the palate. A pill should be of the consistence of firm paste, of

a round form, and not exceed five grains in weight, unless the composition be ponderous.

ALTERATIVE PILLS.

Take of Blue Pill, 1 drachm.
Precipitated Sulphuret of Antimony, 24 grains.

Mix, and divide into 24 pills; two to be taken every night.

This is a good alterstive medicine in cases of scrofula, and chronic erysipelas, cutaneous eruptions, obstructions of the liver, &c. The antiscrofulous medicine should accompany its use. When attended with general irritation, or feverish state of the system, or when the glandular tumours and eruptions are very irritable, it is customary to add three grains of the Extract of Hemlock to each dose of the pills.

ANODYNE OR COMPOSING PILL.

Take of Acetate of Morphine, 6 grains.
Extract of Henbane, 1 drachm.

Mix and divide into 18 pills; one to be taken at bed time, and repeated occasionally.

This is a very valuable composing pill in all cases where an anodyne is necessary, particularly in cases of accidents, rheumatic pain, spasms in the stomach, bowels, or chest, and general nervousness. An anodyne pill, in consequence of its gradual solution in the stomach, will often succeed in producing sleep after laudanum has had a contrary effect. The combination of Acetate of Morphine with the Extract of Henbane does not disturb the head or nervous system, nor constipate the bowels. If one pill should not succeed, the quantity of Acetate of Morphine may be doubled or trebled.

ANTIASTHMATIC PILL.

Take of Squill Pill and Gum Pill, of each 1 drachm.
Camphor, 1 scruple.
Acetate of Morphine, 10 grains.

Mix and divide into thirty pills; two to be taken two or three times a day.

In cases of the humid asthma, this composition often proves very beneficial. In nervous subjects, and in cases of spasmodic asthma, the mechanical action of a pill on the gullet will sometimes bring on asthmatic difficulty of breathing.

ANTIBILIOUS PILL.

(*See* APERIENT PILL, p. 89.)

ANTIHYDROPIC PILL.

(A)

Take of Squill Powder, 6 grains.
Foxglove powder, 6 grains.
Calomel, 12 grains.
Elaterium, 6 grains.
Mucilage of Gum Arabic sufficient to form a mass.

To be divided into 12 pills; two or three to be taken about twice a week.

This is too drastic a cathartic to employ in domestic medicine. It was a favourite purgative with Dr. Blount, at the Hereford Infirmary; and in cases of general dropsy, with the use of a tonic mixture, I have often witnessed its beneficial effects, in promoting the secretion of urine, and producing copious watery motions.

Or, (B)

Take of Squill Pill, 1 drachm.
Calomel, 12 grains.
Gum Gamboge, 96 grains.

To be well mixed, and divided into 24 pills; two or three to be taken once or twice a day, according to their purgative effects.

This was a favourite diuretic purgative, in cases of dropsy, with Mr. Cam of Hereford, and was often prescribed by the late Dr. Lettsom, in cases of dropsy, in conjunction with a tonic medicine.

Or, (C)

Take of Croton Oil, 6 drops.
Squill Pill,
Cathartic Extract, of each 2 scruples.

Mix and divide into 18 pills; three to be taken about twice a week.

Mr. Selwyn, at the Ledbury Dispensary, has prescribed this composition with great success in cases of dropsy. It not only acts briskly on the bowels, but also on the kidneys and the absorbent system.

ANTIHYSTERIC PILL.

Take of the Fœtid Pill, 1 drachm.
Extract of Henbane, ½ drachm.

Mix, and divide into 20 pills; two or three to be taken twice a day.

If the bowels should be confined, two scruples of the Alcaline Extract of Jalap may be added, and the mass divided into 30 pills, of which two or three may be taken once or twice a day, according to their aperient effects. Pills do not succeed so well in cases of hysterical affections as

the mixture, their mechanical action on the gullet often exciting hysteric spasms.

ANTILETHIC PILLS.

Take of Squill Pill, 1 drachm.
Dried Subcarbonate of Soda, 1 scruple.
Oil of Juniper, 10 drops.
Extract of Rhubarb, 2 scruples.

Mix, and divide into 24 pills; two to be taken two or three times a day, with a wine-glassful of infusion of Buchu leaves.

This is a good remedy for red gravel, and for prevention of calculi. It is improper in white gravel.—(*See* ANTACIDS, p. 6., and ANTALKALINES, p. 7.)

APERIENT PILLS.

Take of Alkaline Extract of Jalap, 1½ drachm.
Jamaica Ginger Powder, 10 grains.

To be divided into 24 pills; three to be taken occasionally.

This is a very mild and very valuable aperient pill, in cases of constitutional costiveness, and irritative affections of the rectum, bladder, prostate gland, and urethra. It has the great advantage of not disordering the digestive organs, and of promoting the fæcal secretion of the large intestines.—(*See* CATHARTICS, p. 19.)

COMPOSING PILLS.

(*See* ANODYNE PILLS.)

DEOBSTRUENT PILLS.

Take of Salt of Steel,
Socotrine Aloës,
Turkey Myrrh, of each 1 drachm.

To be made into a mass, with Simple Syrup, and divided into 40 pills; one or two taken twice a day, so as to produce one or two alvine evacuations daily, have proved very beneficial in cases of retention of the menses or green-sickness.

This prescription was published by the late Dr. Buchan, at the dying request of his friend, Dr. Watkinson. It is very similar to the Ephractic Pill of the Edinburgh Pharmacopœia. Many eminent practitioners order only half the quantity of the Salt of Steel, and add six grains of Prepared Calomel.

DINNER PILL.

Take of Extract of Rhubarb,
Extract of Fumitory,
Dried Subcarbonate of Soda,
Ginger Powder, of each 1 scruple.

Mix, and divide into 24 pills.

This is a very excellent composition for vigorating the digestive organs for the dinner meal, and to promote the proper digestion of it. The dose is from two to three pills, with a wine-glass of water. They should be taken about an hour and a half before dinner. The dinner pills sold under the name of Lady Webster's Pills, are composed of Aloës and Mastic, and, by irritating the rectum, often disorder the whole alimentary canal.

DIURETIC PILL.

Take of Squill Pill, 1 drachm.
Dried Subcarbonate of Soda, 1 scruple.
Venice Turpentine, ½ drachm.

Mix, and divide into 24 pills; two to be taken twice a day, with a wine-glass of infusion of Buchu leaves, or Barley-water.

This composition is generally prescribed in cases of deficient secretion of urine.

PURGATIVE PILLS.

(A)

Take of Carthartic Extract,
Alkaline Extract of Jalap, of each 1 drachm.
Elaterium, 5 grains.

Mix, and divide into 30 pills.

Three of these pills operate briskly on the bowels. They have been lately much extolled by Dr. Bethell as a very valuable purgative medicine, when the gouty enemy becomes restless.

Or, (B)

Take of Croton Oil, 6 drops.
Castile Soap, 12 grains.
Cathartic Extract, 1 scruple.
Oil of Cloves, 3 drops.
Extract of Henbane, 1 scruple.

To be well mixed, and divided into 12 pills; three to be taken occasionally.

This is a valuable cathartic medicine, in cases of obstinate costiveness attendant on Devonshire or the painters' colic. In very obstinate cases its operation should be promoted by an aloëtic clyster, as the purgative clyster (A), p. 103.; to which may be added, in case of considerable pain, 12 grains of Extract of Henbane, and two of Acetate of Morphine. The warm bath is a powerful auxiliary to these remedies.

TONIC, OR STRENGTHENING PILLS.

(A)

Take of Extract of Rhatany, 1 drachm.
Extract of Rhubarb, 2 scruples.
Jamaica Ginger Powder, 1 scruple.

Mix, and divide into 24 pills.

Two or three of these pills taken twice a day, with a glass of water, prove very beneficial in cases of general debility, particularly in females, who, from general relaxation, are subject to an excess of the monthly secretion. In cases of general relaxation, in leucophlegmatic habits, a scruple of the Carbonate of Iron may be added, and the mass divided into 30 pills.

Or, (B)

Take of Extract of Rhatany, 1 drachm.
Extract of Rhubarb, ½ drachm.
Resin of Copaiva, 1 drachm.
Carbonate of Iron, ½ drachm.
Cayenne Pepper, 6 grains.

Mix, and divide into 36 pills; two or three to be taken twice a day, with a glass of water.

This is a very efficacious tonic medicine in cases of fluor albus, gleet, and general debility.

POWDERS.—This form is only proper for those articles which admit of being sufficiently dried so as to be reduced to powder, without the loss of their virtue. There are, however, many substances of this kind that are not given in powder, on account of their bulk and disagreeable flavour. It is worthy notice that some articles answer much better in powder than in any other form. The Peruvian bark, and other medicines, answer best in intermittents when given in powder; so that much of their effects may be attributed to their mechanical action on the stomach.

ALTERATIVE POWDERS.

Take of Sarsaparilla Powder, 1 ounce.
Subcarbonate of Soda, 2 drachms.
Peruvian Bark Powder, 3 drachms.

To be well mixed, and divided into 16 papers; one to be taken three times a day, in a glass of water.

This was the favourite alterative powder of the late Mr. Cline, in cases of scrofula and pseudo-syphilitic affections.

ANTHELMINTIC POWDER.

(A)

Take of Male Fern Root Powder, 2 drachms.
Granulated Tin, ½ drachm.

Mix. — To be taken before breakfast, and about two hours afterwards a dose of the Purgative Pills (B), p. 117.

Or, (B)

Take of the Bark of Pomegranate Root, in fine powder, ½ ounce.
Carbonate of Iron, 1 drachm.

Mix, and divide into six papers; one to be taken every morning fasting, and about two hours afterwards a dose of the Purgative Mixture (B), p. 113.—(*See* ANTHELMINTICS, p. 9., and BASILIC POWDER, p. 85.)

ANTIEPILEPTIC POWDER.

Take of Misletoe Powder, ½ drachm.
Flowers of Zinc, 10 grains.
Carbonate of Soda, 20 grains.

Mix.—To be taken three or four times a day, in a wine-glassful of an infusion of Valerian Root, or of Rosemary Leaves. During the use of this remedy, costiveness should be obviated by the Aperient Pills, and the bowels well emptied about three times a month by the Purgative Pills (B), page 117.

ASTRINGENT POWDER.

Take of Alum Powder,
Japonic Earth Powder,
Cinnamon Powder,
of each 2 drachms.

Mix, and divide into 12 papers; one to be taken every two hours, in cases of excessive flow of blood from the uterus or intestines.

COOLING APERIENT POWDER.

Take of Rochelle Salt, in Powder, 2 scruples.
Tartaric Acid, 1 drachm.

Mix. — To be dissolved in about five or six ounces of water, in a twelve-ounce tumbler; then add four scruples of Car-

bonate of Soda, in fine powder; stir them briskly, and when effervescence is taking place swallow them.

These powders are sold under the name of Seidlitz Powders. During the hot days of summer and autumn these powders make a pleasant cooling aperient. In leucophlegmatic habits, and during winter, they disorder the stomach, and occasion a flatulent, grumbling state of the intestines, with small evacuations, which, in elderly or weakly subjects, considerably reduce the general health.

DIURETIC POWDER.

Take of Gum Arabic Powder, 2 drachms.
Nitre Powder, 1½ drachms.
Foxglove Powder, 12 grains.
White Sugar, 1 drachm.

Mix, and divide into 12 papers; one to be taken three or four times a day.

This is very beneficial in cases of inflammation of the bladder or urethra, specific or otherwise. The Aperient Pill should accompany its use. In specific cases, 20 grains of Buchu leaves in powder, or the Cubeb Pepper, may be added to each dose.

EMETIC POWDER.

Take of Ipecacuan Powder, 20 grains.
Emetic Tartar, 1 grain.
Mix.—(*See* EMETIC DRAUGHT.)

SUDORIFIC POWDER.

Take of Dover's Sudorific Powder from 8 to 20 grains.
Precipitated Sulphuret of Antimony, 2 grains.
Mix.

This is an efficacious diaphoretic powder in cases of acute rheumatism and internal inflammation. The quantity of Dover's Powders should be increased or diminished according to the age of the patiant.

TONIC POWDER.

Take of Rhatany Root Powder,
Or Peruvian Bark Powder,
from 20 to 30 grains.
Cinnamon Powder, 5 grains.
Mix. — To be taken in a wine-glassful of infusion of Rosemary three or four times a day.

This Powder is chiefly administered in cases of intermittent fever and general relaxation. — (*See* TONICS, p. 49., and TONIC MIXTURES, TONIC ELECTUARY, and TONIC PILLS.)

EXTERNAL REMEDIES.

CATAPLASMS OR POULTICES. — The most frequent intention of a poultice is to soothe a part which is irritated, and to allay inflammation; but it may also be used to defend a sore from the action of the atmosphere, whilst a natural cure is going on, as is advised by the late Mr. Hunter.

For making the common *bread poultice*, it has been the custom for a long period to employ milk; but as it is very liable to turn sour by the heat of the body, and possesses no advantage over water, the latter is now preferred by surgeons. Poultices are not only used to abate inflammation, or promote suppuration, but also for the purpose of stimulating the skin in cases of palsy, or for producing a determination of blood to the extremities, in cases of plethoric or inflammatory affections of the head, chest, or belly.

Cataplasms or poultices are generally formed of vegetable substances, and applied of such a consistence as neither to adhere much nor run. They are also more useful when the intention is effected by the heat or cold which they keep up.

The following are the most useful: —

ANODYNE OR SOOTHING CATAPLASM.

Take of strong decoction of Poppy Heads, 1 pint.
Oatmeal, with a little Linseed Powder mixed with it, a sufficient quantity to form a Poultice.

This Cataplasm, on account of its sedative quality, (which, if necessary, may be farther increased, by adding to it a little of the Solution of Acetate of Morphine,) is a good application to irritable or painful ulcers, &c.

ANTIRHEUMATIC POULTICE.

Take of Cumin Seeds, in coarse powder, 6 ounces.
Bay Berries and Jamaica Pepper, in coarse powder, 1 ounce.
Honey, a sufficient quantity to form a Poultice.

This remedy was formerly considered a very efficacious remedy for deep-seated, rheumatic, or gouty pains, and has very probably undeservedly fallen into disuse, in consequence of its not being an apothecary's remedy.

ANTISCROFULOUS CATAPLASM.

(A)

This is prepared, by bruising a quantity of the marine plant, commonly called *sea tang*.

Its chief use is in cases of scrofula: white swellings and glandular tumours more especially.

Where this vegetable cannot be obtained in its recent state, a common poultice of sea-water and oatmeal has been substituted for it by the late Mr. Hunter, and other surgeons of eminence.

The following is preferred by some surgeons: —

(B)

Take of the Infusion of the Corsican Moss (made by infusing half an ounce of the moss in a pint of water for twelve hours within the heat of the fire), 1 pint.
Oatmeal, a sufficient quantity to form a Poultice.

These Poultices have been highly extolled by Dr. Cheston, Mr. Allard, Dr. Sully, and other eminent practitioners, in cases of scrofulous tumefactions of glands, joints, &c.

(C)

Cataplasms made with Sea Water and Oatmeal, with a weak Solution of Glauber's Salt, have been employed for the same purpose by Dr. Hunter, Dr. Kirkland, and Mr. Cline.

ASTRINGENT CATAPLASM.

(A)

A kind of Astringent Poultice is made by stirring a lump of Alum in the whites of two or more eggs, till a coagulum is formed. It has proved very useful in cases of chronic inflammation of the eyes, especially when attended with a thick or purulent discharge. Mr. Samuel Cam, a scientific and experienced surgeon of Hereford, was in the habit of prescribing it in such affections, and I have often witnessed its good effects. It was also a favourite remedy with the late Dr. Cheston, and Mr. Naylor of Gloucester, in chronic inflammation of the eyes, and ulcerations of the tunica conjunctiva. It is generally applied between two pieces of thin linen rag. It is frequently prescribed by some eminent surgeons, as a topical remedy in chilblains, during the first or inflammatory stage.

(B)

The following astringent application, which falls under the denomination of Cataplasm, was frequently prescribed by Mr. Cam of Hereford, and by Mr. Allard of Bristol, in the advanced stage of chronic inflammation of the eyes, or in cases of relaxation of the vessels after the inflammation had been subdued:

Take of Conserve of Red Roses, 2 ounces.
Alum, finely powdered, ½ drachm.

CORRECTIVE POULTICE.

Cataplasms which correct the foetor, and the discharge of ill-conditioned or cancerous ulcerations, are thus termed.

At the Hereford, Gloucester, and Bristol Infirmaries, three Poultices are used for this purpose, viz. the Carrot, the Charcoal, and the Fermenting.

(A)

The Carrot Poultice, which has been very generally employed in cases of cancerous and irritative ulcerations, is made by reducing boiled Carrots to a pulp. Some surgeons have substituted boiled Turnips for Carrots; and they say that the pulp is as beneficial as that of the Carrot.

(B)

The Fermenting Cataplasm is made, by stirring into the common Oatmeal Poultice a little yeast, and keeping it covered at a small distance from a fire till the mass begins to ferment. It is by much the most effectual way of applying fixed air to ulcers. In using it, care must be taken not to bind it on too closely; as the fermentation, a short time after its application, will be considerable, and its bulk, of course, so increased, as to put the cloths and bandages which confine it very much on the stretch.

(C)

The Charcoal Poultice employed at the Hereford Infirmary, is made by adding four ounces of finely-powdered Charcoal to about a quart of the Emollient Cataplasm. It has been found of considerable service in correcting the fœtor of cancerous and fœtid ulcers, and disposing them to granulate favourably. It has also been lately much recommended as a soothing application in cases of inflammation attended with excoriation, and particularly for ulcerations, the consequence of scalds or burns, by a surgeon, who contends, that charcoal acts chemically or specifically on inflamed parts, where the cuticle is broken.

DETERGENT POULTICE.

(A)

Take of strong Infusion of the Hop, 1 pint.
Oatmeal, a sufficient quantity.

This was a favourite Cataplasm with Dr. Trotter and Mr. Allard, in cases of foul and gangrenous ulcer.

The following Poultice was much employed as a detergent at the Hereford Infirmary by Mr. Cam, and is generally used in hospital practice, both in London and in the country: —

(B)

Take of the Grounds of Strong Beer, 1 pint.
Oatmeal, or Pollard, or a mixture of them, a sufficient quantity to form a Poultice.

(C)

The following formula is taken from a very useful work, entitled, "The New Medico-Chirurgical Pharmacopœia:"

To old bottled Porter (brown stout), very much up, 2 bottles,
Add Yeast, ½ pint.
Treacle, 1 ounce.

Mix gradually, and then stir into it one part of Linseed-meal and two parts of Oatmeal; place it near to the fire to ferment, keeping the vessel which contains the Cataplasm closely covered. This excellent Cataplasm was much used by Mr. Allard, both in his private and hospital practice, in cases of gangrene, and foul and sloughing ulcers. He sometimes directed the surface of the Cataplasm to be sprinkled with Powdered Charcoal, and the Cataplasm to be renewed three or four times a day. He sometimes ordered it to be made with the strongest bottled Ale. He observed good effects from occasionally using Ale or Porter, when the parts became used to the application.

The following is a very excellent Detergent Poultice, in cases of cancerous or very indolent ulceration, particularly of the phagedœnic kind: —

(D)

Add to the Anodyne Poultice from 30 to 60 drops of Tincture of Muriate of Iron, and two or three drachms of Extract of Hemlock.

DISCUTIENT POULTICE.

(A)

Take of Pure Water, ½ pint.
Crumbs of White Bread, a sufficiency to form a Poultice; then add,
Goulard's Extract of Lead, 40 drops.

Mix well together.

This is a good soothing application in cases of inflammation attendant on recent cuts, or simple inflammation, when a state of the system is produced unfavourable for inflammatory action, by abstraction of blood (if plethoric), and a purgative medicine.

(B)

Take of Barley Meal, 8 ounces.
Extract of Hemlock, 2 drachms.
Extract of Lead, 2 drachms.
Equal parts of Vinegar and Water to form a Poultice.

This Cataplasm, applied cold, was frequently ordered at the Bristol Infirmary by Mr. Allard, and at the Hereford Infirmary by Mr. Coates, in cases of irritative inflammation.

(C)

The common Vinegar Poultice has been preferred, as a discutient, to the Saturnine Poultice, by some surgeons. It is made with common Vinegar and Oatmeal. Although a simple composition, it often proves an useful remedy for sprains

and bruises. The late Sir Charles Blicke thought it had considerable effect in stopping the progress of scrofulous enlargement of a bone. A small quantity of Linseed-meal may be added, to give it a greater degree of tenacity than can be expected from the bread and oatmeal, where heat is not employed. Fine Bran (Pollard) is used at many hospitals instead of Oatmeal. The juice of the crab-apple was preferred by the late Mr. Cam, an eminent surgeon of Hereford, to vinegar, on account of being more acid. The late Dr. Campbell, of that city, was in the habit of prescribing it in cases of inflammation of joints.

Discutient Poultices are generally applied cold.

EMOLLIENT CATAPLASM.

(A)

The common Emollient Poultice is made by stirring a sufficient quantity of the meal into boiling water.

This is reckoned a good emollient, and is adopted at all the London hospitals; but it is doubtful whether the Poultice of Bran, with Linseed Powder, is not preferable to it; as there is too great an abundance of slimy mucilage in the Linseed alone, to answer, completely, the purposes of a relaxant.

(B)

Some surgeons prefer the Bread Poultice, which is prepared by soaking slices of *new* bread, in boiling hot water, till they are swollen and perfectly soft. It is necessary to pour off, and even to press out, as much water as may appear to be superfluous; after which the bread may be beaten up with a spoon.

This composition will be rendered still more complete, if a small quantity of Linseed-meal be stirred into it, which has the double advantage of binding its parts together, so that it shall not adhere to the skin; and of retaining, for a much longer time, that moisture, on the preservation of which its beneficial effects chiefly depend.

STIMULATING POULTICE.

(A)

The Stimulating Cataplasm in common use is that of the Flour of Mustard, commonly termed Sinapism, which is made by mixing two ounces of the Flour of Mustard with four ounces of Oatmeal, and adding as much boiling water as will form it into a Poultice. This Cataplasm is applied warm, for the purpose of exciting inflammatory action, in order to produce a derivation in favour of a part generally of vital importance in the system, as inflammation or compression of the brain; and also to reproduce gouty action in the extremities, after recession. It is generally applied to the feet, and sometimes, in desperate cases, to the hands likewise. It is a valuable local stimulant in cases of palsy, and may be employed with advantage in some cases of indolent abscesses, to promote suppuration.

SUPPURATIVE CATAPLASM.

Take of Oatmeal, ½ pound.
Beer Grounds, a sufficient quantity to form a Poultice; then add,
Camphor, ¼ drachm,
dissolved in half an ounce of Oil of Turpentine.

This is a powerful Stimulating Cataplasm; and in indolent tumours, in which suppuration is going on languidly, has proved very beneficial in producing healthy maturation. In such cases, the use of internal medicines, which the state of the alimentary canal, the sanguiferous system, and the degree of temperature of the system may indicate, should be employed to co-operate with the local remedies.

EMBROCATIONS. — (*See* LINIMENTS.)

FOMENTATIONS. — Fomentations are employed with two views, viz. to relax a part affected with rigidity, spasms, or inflammation, and to brace and invigorate relaxed parts, and promote suppuration in languid tumours. For the first purpose, *warm* water generally succeeds; and for the latter, *hot* water, impregnated with a vegetable astringent, is generally employed. When the object is to relax a part, it is obvious a relaxing degree of heat should be employed, which is about 110 degrees; and to water at this temperature an addition of an anodyne, as poppies,

hemlock, &c. no doubt proves very beneficial, by quieting the nerves, and by relaxing the muscular fibres of the part. If the water be at the degree of nearly 200, it will have a very stimulating effect; and, in cases of deep-seated inflammation, is likely to hasten suppuration, instead of acting as a discutient. It is of great importance, in all cases of inflammation, that the degree of heat be properly regulated according to the state of the inflammation, or the nature of the disease; but so little attention is paid to these circumstances, that the nurses of hospitals generally apply the fomentations, either astringent, stimulating, sedative, or discutient, at as high a degree of heat as their hands will bear; and hence the remedy has a contrary effect to what was intended by the prescriber. A fomentation is, in fact, according to the degree of heat, whether simple or medicated, either anodyne, or soothing, or stimulating; and, however strongly impregnated with an anodyne, if applied at the temperature of 200 degrees (Fahr.), it will have a stimulating, instead of a soothing effect. In cases of spasms, a high degree of temperature is often necessary; and also in cases of languor, or muscular or nervous debility, a high degree of heat unquestionably promotes the operation of an astringent or aromatic fomentation. The following fomentations are in general use: —

ANODYNE OR DISCUTIENT FOMENTATION.

(A)

Take of Elder Flowers,
Dried Leaves of Henbane,
Dried Leaves of Hemlock,
Poppy Heads, of each, ½ ounce.

To be boiled gently in two pints and a half of water, till reduced to a quart.

This Fomentation was frequently directed by Mr. Allard to be applied warm for a quarter of an hour, or longer, according to its effects, to abate pain in cancerous ulcers of the mamma, and in other painful and irritable ulcers. He sometimes also directed a poultice made with this Fomentation and Linseed-meal to be applied.

Or, (B)

Boil four ounces of sliced Poppy Heads (without seeds), in five pints of Water, till reduced to two quarts.

This is the Anodyne Fomentation of Guy's Hospital. It is much used in cases of irritative or painful ulcers.

Or, (C)

Boil half a pound of Hemlock Leaves (fresh) in three pints of Water, till reduced to a quart.

This is chiefly employed in cases of cancerous or painful spreading ulcerations.

Or, (D)

Boil two ounces of Camomile Flowers, and three ounces of Poppy Heads, in five pints of Water, till reduced to two quarts. The Camomile Flowers should be added about two minutes before the decoction is taken off the fire, and the vessel should be kept covered till it be used. This Fomentation, at the temperature of 200 (Fahr.), is frequently employed to promote suppuration in indolent tumours.

ASTRINGENT FOMENTATION.

Boil an ounce of Blue Galls, bruised, in three pints of Water, till reduced to a quart.

This is chiefly employed in cases of prolapsus ani, prolapsus uteri, piles, and fluor albus, when attended with irritation.

STIMULATING FOMENTATION.

Boil two ounces of Camomile flowers, in four quarts of Water, for two minutes; then strain, and add Muriate of Ammonia, one ounce, and Camphorated Spirit, two ounces.

This Fomentation is chiefly used to excite a healthy action in old indolent ulcers.

LINIMENTS AND EMBROCATIONS. — Liniments are external applications, differing only from embrocations in consistency. The term is now generally used as synonymous with embrocation. Liniments and embrocations, like fomentations and lotions, are used as sedatives and stimulants, but in general as the latter, to excite the action of the skin, in which case their operation is greatly promoted by friction with a warm hand or with a piece of flannel. Occasional use of a sedative fomentation renders the part more susceptible of a sedative liniment, and that of a stimulating fomentation of a stimulating or astringent liniment or embrocation.

ANODYNE EMBROCATION.

(A)

Take of Solution of Acetate of Morphine, 2 drachms.
Camphorated Spirit of Wine, 2 ounces.
Essential Oil of Bitter Almonds, 8 drops.

This is a powerful anodyne application in cases of superficial acute pain, as tic douloureux, &c. It should be applied by means of lint, without friction.

Or, (B)

Take of Tincture of Belladonna, 4 drachms.
Camphorated Spirit, 1 ounce.

This is used for the same purpose as the preceding.

ANODYNE LINIMENT.

(A)

Take of Olive Oil, 1 ounce.
Essential Oil of Bitter Almonds, 6 drops.
Camphor, ½ drachm.
Mix.

This is much recommended in cases of acute pain in a joint. When deep seated, some surgeons add to it 3 drachms of the Liquor of Ammonia.

Or, (B)

Take of Ointment of Belladonna, 3 drachms.
Extract of Lead, 30 drops.
Prepared Calomel, 1 drachm.
Olive Oil, 4 drachms.
Mix.

This is a valuable liniment for irritative piles, or for allaying irritation attendant on structural disease of the rectum, &c. It is also an excellent remedy for erysipelatous inflammation of the fundament, &c.

DISCUTIENT LINIMENT.

(A)

Take of Camphor, 2 drachms.
Olive Oil, 1 ounce.
Oil of Turpentine, 2 drachms.
Soft Soap, ½ ounce.
Mix.

Some surgeons suppose that this liniment possesses a peculiar discutient property. The late Dr. Fraser was very partial to it in cases of lumbago and local gout.

Or, (B)

Take of Alum, 2 drachms.
Vinegar, 12 ounces.
Spirit of Wine, 4 ounces.
Mix.

This embrocation is highly extolled by some surgeons as a remedy for recent chilblains. It is applied by means of folded linen rags. — (*See* CAJEPUT LINIMENT.)

Or, (C)

Take of Linseed Oil and Lime Water, of each equal parts.
Mix.

This is a common liniment for burns and scalds. Some surgeons add about two ounces of Rectified Oil of Turpentine to a pint of this liniment.

Or, (D)

Take of Rectified Oil of Turpentine and Linseed Oil, of equal parts.

This is employed by some surgeons for the same purpose as the preceding liniment.

STIMULATING LINIMENT.

(A)

Take of Olive Oil, 2 ounces.
Strong Liquor of Ammonia, 1 ounce.
Oil of Turpentine, 3 drachms.
Mix.

This is chiefly used in cases of deep-seated rheumatic pains, indolent enlargement of joints, and for promoting

the suppuration of indolent tumours. Some surgeons add half an ounce of the strong Mercurial Ointment to this composition, which, in most cases, promotes its efficacy.

Or, (B)

Take of Liquor of Ammonia, ½ ounce.
Olive Oil, 1 ounce.
Mix.

This is chiefly used to excite irritation in the skin of the throat, in cases of inflammation of the tonsils, &c.

Or, (C)

Take of Barbadoes Tar, 1½ ounce.
Strong Liquor of Ammonia, ½ ounce.
Mix.

This was much employed by the late Dr. Kirkland, in diseases of the hip and other joints, who considered the Petroleum as "a most powerful dissolver of thickened lymph;" and, as a proof of it, remarks its property of curing those accumulations about the joints of horses, called *wind-galls*. It has been much used at Bartholomew's Hospital, the Westminster Infirmary, and at several provincial Infirmaries; but the results were never such as to induce me to prefer it to the Stimulating Liniment (A).

Or, (D)

Take of Citrine Ointment and Camphorated Oil of each equal parts.

This is an excellent remedy for neglected chilblains.

LOTIONS.— A lotion is a form of medicine composed chiefly of water, and is used either as a wash, or applied by means of folded linen. Lotions act beneficially in cases of inflammation, partly in consequence of being applied cold, partly in consequence of evaporation, and those which contain a sedative; as Acetate of Lead, Morphine, &c. also by reducing nervous and vascular excitement. Lotions are employed, like fomentations, to allay inflammation or irritation, and also to constringe or stimulate languid parts.

ALTERATIVE LOTION.

Take of Oxymuriate of Mercury, 12 grains.
Lime Water, 8 ounces.
Mix.

This, although unchemical, is a very excellent application for scrofulous and other foul-spreading ulcers. I have often found it to check the phagedænic progress, and rapidly to heal the ulcer, after other preparations of mercury had failed. The mercury is rendered so mild by the lime water, that this lotion may with safety be employed as a gargle in cases of venereal or scrofulous ulceration about the fauces. The beneficial effects of this composition prove, that we should not relinquish an old remedy because it is unchemical; for, although decomposition of the Oxy Muriate of Mercury is occasioned by the addition of Lime Water, still new combinations form, of the *medicinal* properties of which a man who studies chemistry only cannot be a judge.

ANODYNE LOTION.

(A)

Take of the expressed Juice of Potatoes, ½ pint.
Spirit of Wine, 3 ounces.
Liquid Laudanum, 3 ounces.

This lotion has been highly extolled as an application for burns and scalds. The Potatoes finely grated or well bruised in a marble mortar, with the addition of Spirit of Wine and Laudanum, is a common and certainly very good topical remedy for superficial recent burns or scalds.

Or, (B)

Take of Extract of Cicuta, 3 drachms.
Lime Water, a quart.
Mix.

This lotion has been directed by Mr. Allard, Dr. Cheston, Dr. Fraser of Bath, and others, to ease pain in cancerous ulcers.

Or, (C)

Take of Solution of the Acetate of Morphine, from 1 to 2 drachms.
Liquor of Acetate of Lead, 4 drachms.
Distilled Water, 8 ounces.

This is a very efficacious application to allay itching or inflammatory action about the fundament, &c.

ANTIHEMORRHOIDAL LOTION.

Take of Sulphate of Zinc, 2 drachms.
Distilled Vinegar, 2 ounces.
Elder flower Water, 5 ounces.

This lotion was often successfully pre-

scribed in cases of Piles by Mr. Allard, who occasionally added to it Opium, or *Tinct. Opii*, when they were attended with considerable pain.

ANTIPSORIC LOTION.

Take of Sulphuret of Potass, 4 drachms.
Lime Water, 1 pint.
Mix.

The Sulphuret of Potass should be reduced to a fine powder, and the Lime Water added gradually, and well mixed by continuing the trituration.

This is a neat and useful application in the *scald-head*, *itch*, and *lepra*. At Bartholomew's Hospital a lotion is employed for the same purpose, made by dissolving two drachms of the Sulphuret of Potass in a pint of Distilled Water. Sir Arthur Clarke of Dublin recommends a similar lotion for the itch of infants; and, in some instances, I have found it to succeed after the ointment of sulphur has failed.

ASTRINGENT LOTIONS.

(A)
Take of Alum, ½ ounce.
Distilled Water, 1 pint.
Mix.

This is the Alum Lotion of St. Bartholomew's Hospital. It is employed sometimes as a discutient, and likewise with a view of checking the progress of external inflammation.

Or, (B)
Take of Blue Vitriol, 1 grain.
Dissolve in four ounces of Distilled Water, and add, Laudanum, No. 31. 30 drops.

To be dropped between the eyelids of the affected eye, or eyes, three or four times a day, for films or specks. This is a very useful application for films or specks on the eye. It was a favourite remedy in such cases with the late Mr. Ware, and with Sir William Adams.

Or, (C)
Take of Oxymel of Verdigris, 1 ounce.
Camphorated Mixture, 2 ounces.
Solution of Acetate of Opium, 1 drachm.
Mix.

This is a good application for foul spreading ulcerations, particularly those which occur in the face.

Or, (D)
Take of Nitrate of Copper, 8 grains.
Nitrate of Mercury, 2 grains.
Elderflower Water, 6 ounces.
Mix.

This is a valuable lotion for scald head, and foul scrofulous or syphilitic ulcers.

DETERGENT LOTION.

(A)
Take of Honey of Roses, and Tincture of Myrrh, of each 2 drachms.
Lime Water, ½ ounce.

This mixture is chiefly calculated as an application to ulcers within the mouth, in which case it is to be applied upon lint. It is, however, equally proper for scrofulous or other sores, where greasy applications disagree.

Or, (B)
Take of Gum Myrrh Powder, 1 drachm.
Tincture of Muriate of Iron, 1 drachm.
Honey of Roses, ½ ounce.
Water, 2 ounces.

This is a good detergent application for foul or languid ulcers. If attended with pain or considerable irritation, a drachm of the Solution of Morphine may be added.

DISCUTIENT LOTION.

(A)
Take of Mindererus's Spirit, and Rectified Spirit of Wine, of each 2 ounces.
Distilled Water, 4 ounces.
Mix.

This lotion is of great use in external inflammation; but more particularly in the early stage of inflammation of the breast, or mammary gland during suckling. In the latter case, many surgeons prefer Mindererus's Spirit alone; but as the evaporation of it is more slow, and the good effects of such lotions chiefly arise from evaporation, I should give a decided preference to a more spirituous one. On account of an infant being at the breast, Extract of Lead cannot be employed. Linen rags should be dipped into it, as in other instances, and kept continually on the inflamed parts.

Or, (B)
Take of Camphor, 2 drachms.
Dissolve in Rectified Spirit of Wine, 4 ounces.
Then add White Wine Vinegar, 1 pint.

For strains, bruises, and inflammation arising from accidents. It may be conveniently applied in the form of a poultice, by adding a sufficient quantity of bran to make it of a proper consistence: when it becomes unpleasantly dry, a fresh quantity of the lotion should be poured over the external surface, so as to moisten it throughout.

Or, (C)
Take of Muriate of Ammonia, 1 ounce.
Spirit of Rosemary, 1 pint.
Mix.

This was strongly recommended by the late Mr. Justamond, as a topical application to tumefaction of the breasts, termed "milk breast." It is to be applied in the same manner as the Discutient Lotion (A).

Or, (D)

Take of Goulard's Extract of Lead, No. 30. 10 drops.
White Wine Vinegar, 2 drachms.
Laudanum, No. 31. 30 drops.
Distilled Water, 8 ounces.
Mix.

For inflammation of the eye, or eyelids. To be frequently applied by means of folds of fine old linen over the affected eye or eyes.—(*See* INFLAMMATION OF THE EYE.)

Or, (E)

Take of Extract of Lead, 2 drachms.
Rectified Spirit of Wine, 1 ounce.
Pure Water, 2 pounds.
Mix.

This is used as a cooling lotion for common inflammation from accidents or other causes. It should be applied by means of folded old soft linen.

Or, (F)

Take of Sulphate of Zinc, ½ drachm.
Distilled Water, ½ pint.

This is chiefly used in cases of inflammation about the fundament, and excoriations of children.

STIMULATING LOTION.

(A)

Take of Emetic Tartar, 2 scruples.
Water, ½ pint.
Mix.

Mr. Allard was in the habit of using this lotion, by means of folded linen, frequently wetted, in cases in which he wished to excite pustular eruptions.

Or, (B)

Take of the Liquor of Muriate of Antimony, 1 drachm.
Water, 1 ounce.
Mix.

This is used for the same purpose as the preceding lotion.

OINTMENTS.—Ointment is a composition of animal fat or fixed oil, with other substances, for external use; it differs from liniments and plasters in consistence only, being thicker than the latter, and thinner than the former. When they contain a large proportion of wax, and of a consistence between that of ointment and plaster, it is termed cerate. Ointments are not only used to defend wounds from the action of the cold air, but also to assuage pain and inflammation, to produce a healthy discharge from ulcers, and often, as an external dressing, to retain on the part such other applications as may be necessary to destroy fungus, &c.—The following are the most useful:

ALTERATIVE OINTMENT.

(A)

Take of Citrine Ointment, 1 ounce.
Common Tar, 1 drachm.
Mix.

Or, (B)

Take of Citrine Ointment, 1 ounce.
Acetate of Copper, 30 grains.
Mix.

Or, (C)

Take of Citrine Ointment, 6 drachms.
Ointment of Belladonna, 2 drachms.
Mix.

This and the preceding ointments are highly extolled as remedies for scald-head, ring-worm, and leprous affections of the skin.

Or, (D)

Take of Calomel Prepared, 1 drachm.
Flowers of Zinc, 30 grains.
Spermaceti Ointment, (fresh) 6 drachms.
Mix.

This is chiefly employed in cases of inflammation of the edges of the eyelids. The size of a horse bean should be rubbed along the edges of the eyelids every night, and a little introduced into each corner. This was a favourite remedy for scrofulous and erysipelatous inflammation of the eye and eyelids with the late Mr. Ware, and is frequently prescribed in such cases by the first surgeons of London.

ANTIPSORIC OINTMENT.

Take of Levigated Sulphur Vivum, 4 drachms.
White Hellebore Root, in fine powder, 3 drachms.
Oil of Lavender, 30 drops.
Hogs' Lard, 1 ounce.
Olive Oil, a sufficient quantity to form an ointment.

This is a very efficacious ointment for the itch. It should be well rubbed over the parts affected every night.—(*See* ANTIPSORIC LOTION.)

ANODYNE OINTMENT.

Take of Ointment of Hemlock, 1 ounce.
Solution of Acetate of Morphine, 1 drachm.
Extract of Lead, 1 drachm.
Mix.

This is a powerful sedative ointment in cases of cancerous ulcerations, and chronic erysipelatous inflammation, attended with itching. In the latter case, an addition of one drachm of Calomel will render it more efficacious.

ANTIHEMORRHOIDAL OINTMENT.

(A)

Take of Calomel, 2 drachms.
Extract of Lead, ½ drachm.
Barbadoes Tar, 2 drachms.
Elderflower Ointment, 1 ounce.
Mix.

Or, (B)

Take of Flowers of Zinc, 1 drachm.
Calomel, ½ drachm.
Acetate of Morphine, 1 drachm.
Elderflower Ointment, 1 ounce.
Mix.

This and the preceding ointment generally prove very beneficial in cases of piles. The Electuary for piles should accompany the use of either of them.

Or, (C)

Take of Extract of Lead, 30 drops.
Extract of Henbane, ½ drachm.
Camphor, 12 grains.
Elderflower Ointment, 1 ounce.
Mix.

This was a favourite pile ointment with the late Dr. Chester, and Mr. Allard of Bristol.

DIGESTIVE OINTMENT.

Take of Citrine Ointment, 1 ounce.
Balsam of Canada, 2 drachms.
Mix.

This is a good alterative digestive ointment.—(*See* YELLOW BASILICON.)

DISCUTIENT OINTMENT.

(A)

Take of Ointment of Belladonna, and Mercurial Ointment, of each equal parts.

This is a very powerful Discutient in cases of hard or scirrhous tumours. The size of a large horse bean should be rubbed gently over the part every night; also during the day time applied by means of lint.

Or, (B)

Take of Hydriodate of Potass, finely powdered, 1½ drachm.
Soft Soap, 3 drachms.
Palm Oil, and Spermaceti Ointment, of each 3 drachms.

Rub the Hydriodate of Potass, finely powdered, with the Soft Soap, and then add the other ingredients.

This Ointment is highly extolled as a powerful discutient of wenny and scrofulous tumours. The size of a nutmeg should be gently rubbed every night over the part, with the warm hand, for ten or fifteen minutes. Fomentation of the tumour once a day, has been found to promote its effects, particularly in cases of indolent tumours or enlarged joints. Some surgeons substitute the Mercurial Ointment for the Spermaceti, and others add two drachms of the Belladonna Ointment, when the part is painful or tender.

EPULOTIC OINTMENT.

(*See* SPERMACETI OINTMENT, and BROWN CERATE.)

RUBEFACIENT OINTMENT.

Take of Emetic Tartar, from 2 to 3 drachms.
Hogs' Lard, 1 ounce.
To be well mixed.

This ointment is very generally employed by physicians and surgeons for the purpose of exciting external inflammation, to act as a derivative in cases of internal or deep-seated inflammation, or excessive nervous excitement. A portion of the Emetic Tartar is no doubt absorbed, and in some cases it has excited nausea, and disordered the bowels, and it is probable that much of its beneficial effect may be attributed to its action on the constitution, similar to that it produces when exhibited in nauseating doses. It should be well rubbed on the skin twice a day, till it produces inflammation and pimples. The pimples advance to suppuration, and form pustules resembling small-pox, and no doubt the suppurative process acts as beneficially as the inflammation. It is common for a little fever to occur at the time suppuration commences in the pustules, which does not aggravate the internal inflammatory complaint, but as soon as it begins to decline, which it generally does in the course of twenty-four hours, the violence of the complaint begins to abate, and as the suppurative

process advances in the pustules, the disease subsides. It seems that this Ointment acts beneficially, by producing a kind of eruptive fever, which, like small pox, influences the whole system, and in some complaints it may succeed by exciting another capable of counteracting it. In cases of dropsical swellings of the legs, or when the system is dropsical, this Ointment, and all other rubefacient remedies, should be applied only under the direction of a very experienced and judicious practitioner, as the inflammation it excites may terminate in mortification.

STIMULATING OINTMENT.

Take of Spanish Flies, in fine powder, 1 drachm.
Yellow Basilicon, 1 ounce.—
Mix.

This ointment is much employed to increase the discharge from issues and setons. It is also used for the purpose of keeping up the discharge from a blistered surface, or for making what is termed a perpetual blister; but the Savin Ointment, noticed p. 88., is now generally preferred to it.

PLASTERS. — The consistence of this form of topical remedies is thicker than that of cerates or ointments. They are of an adhesive nature, so as to stick to the skin, and are commonly spread on leather; and those intended for the chest or abdomen are generally made more soft, by a small addition of olive oil, than those for the extremities.

ANODYNE PLASTER.

Take of Diachylon, 4 ounces.
Burgundy Pitch, ½ ounce.
Yellow Wax, 2 ounces.
Opium, 1 drachm.

Melt by a gentle heat the three first articles together, and then stir in the Opium, finely powdered.

This plaster was much employed by Cheselden in cases of bruises and sprains attended with much pain, and also in painful tumours. Dr. Kirkland recommends a similar plaster, with the addition of half a drachm of Camphor.

Or, (B)

Take of Soap Plaster, 3 ounces.
Morphine, 2 scruples.
Extract of Hemlock, 2 drachms.

To be mixed by a gentle heat.

This is a very excellent anodyne plaster in all cases of local pain, particularly in joints and fractured bones after reduction.

ANTIRHEUMATIC PLASTER.

Take of Sulphuret of Potass (Liver of Sulphur), 4 drachms.
Hemlock Leaves, powdered, 3 drachms.
Camphor, 2 drachms.
Burgundy Pitch, 4 drachms.
Diachylon, 3 ounces.

Melt the plaster and pitch together, and when getting thick add the Sulphuret, Hemlock, and Camphor, previously reduced to a fine powder.

This plaster is much recommended by a French physician in cases of deep-seated rheumatism and chronic enlargement of joints.

DISCUTIENT PLASTER.

(A)

Take of Common Soap, 2 drachms.
Diachylon, ½ ounce.
Sal Ammoniac, 1 drachm.

The Diachylon and Soap are to be melted together; and, when nearly cold, the Sal Ammoniac, finely powdered, is to be stirred in.

"This," says the author of the New Medico-Chirurgical Pharmacopœia, "is the *volatile plaster* of Dr. Kirkland, and may justly be deemed one of the best compositions of the kind that has hitherto been invented. The alkali of the soap, entering gradually into combination with the muriatic acid of the salt, disengages the pure volatile alkali, which acts continually on the part affected, stimulating the absorbents, and thus proving of service in chronic enlargement of the joints, or what have been called cold tumours. Hence, in some scrofulous affections of the knee or elbow-joints, it is of very great service; but more particularly so in the cure of those gelatinous swellings which frequently form above the elbow-joint."

Where the skin is particularly delicate or irritable, it may be necessary to diminish the proportion of Sal Ammoniac, perhaps to one half the quantity, otherwise the plaster may blister the part. It may also be necessary to add, that unless it be prepared at the time of application, and the ingredients compounded in the order above mentioned, the whole intention will be frustrated.

Or, (B)
Take of Strained Gum Ammoniac, 2 ounces.
Quicksilver, 3 drachms.
Balsam of Sulphur, 1 drachm.

The Quicksilver is to be extinguished in the Balsam, and then gradually added to the strained Gum, previously melted.

This plaster is a good discutient application for indurated glandular tumours, for leprous affections of the skin, and for chilblains.

Or, (C)
Take of Gum Ammoniac, strained,
Soap Plaster, of each 1 ounce.
Strong Mercurial Ointment, ½ ounce.
Extract of Belladonna, 3 drachms.

Melt the Gum, Extract, and Plaster together, and then add the Ointment.

This composition, thickly spread on leather, is highly extolled by a surgeon of London as a topical application in cases of schirrhous and scrofulous tumours. It is also a valuable plaster for corns, bunions, and enlargement of joints.

STIMULATING PLASTER.

(A)
Take of Labdanum, 1½ ounce.
Frankincense, ½ ounce.
Cinnamon, in fine powder, 2 drachms.
Oil of Nutmegs, 40 drops.
Oil of Spearmint, 80 drops.

To the melted Frankincense add the Labdanum, previously softened by the fire. Next join the Expressed Oil of Nutmeg, and, lastly, the Cinnamon with the Oil of Mint, and stir them together in a warm mortar.

This plaster is used to promote the suppuration of inactive tumours. With the omission of the Oils, it is used as a pectoral plaster in cases of irritation in the chest, and also as a stomachic plaster in cases of indigestion arising either from increased or diminished excitement of the stomach.

Or, (B)
Take of Burgundy Pitch, 2 ounces.
Gum Ammoniac, strained,
Gum Galbanum, of each 1 ounce.
Pellitory of Spain,
Mustard flour, and
Camphor, of each 2 drachms.
Oil of Turpentine, a sufficient quantity.

The three first ingredients being melted together, add the Pellitory, Mustard-seed, and Camphor, previously powdered, and as much Oil of Turpentine as will make the whole of a due consistence.

This application is as stimulating as the Euphorbium Plaster, and possesses similar properties. It is a very excellent topical application in cases of deep-seated rheumatic pains of elderly subjects, and local palsy.

Or, (C)
Take of Burgundy Pitch Plaster, 2 ounces.
Euphorbium Powder, 2 drachms.
Common Turpentine, a sufficient quantity.

The Burgundy Pitch Plaster being melted, the Euphorbium, in fine powder, is to be added, and as much of the Turpentine as is required to make the whole of a due consistence.

Its properties being those of a powerful stimulant, this plaster is calculated to relieve diseases of the hip-joint in the early stage; and with this view it has a place among the formulæ of Guy's Hospital. It is also employed to keep up inflammation of the skin in cases of chronic inflammation of the liver, lungs, stomach, or any other viscus.

Cheselden lays great stress on the good qualities of this Plaster, which, he says, greatly exceeds the celebrated plaster of Paracelsus for promoting the suppuration of sluggish abscesses.

When inflammation is established in a joint, or when it is extended throughout the joint, this Plaster may do mischief by occasioning a formation of matter. In cases of chronic inflammation of the liver and of the lungs, I have frequently witnessed its good effects.

POWDERS.—Very few articles are employed, in the state of dry powder, as external remedies.

ANODYNE POWDER.

The Powders employed to allay irritation and pain in ulcers, are Hemlock, Opium, and Henbane.

ASTRINGENT POWDER.

Finely-powdered Galls, Oak Bark, Rhatany Root, Rhubarb, and Peruvian Bark are very frequently ordered to be

sprinkled over indolent ulcers, particularly those with a glassy surface, and with large fungous granulations, and, in general, either of them proves very beneficial in constringing the relaxed parts, and in producing healthy pus.

CAUSTIC POWDER.

(A)

Take of Savin Powder,
Prepared Verdigris, of each 1 drachm.

This Powder is very generally employed to destroy warts and excrescences, with tender or ulcerated surfaces. It should be sprinkled over the surface daily, till the disease entirely disappears.

(B)

Take of Burnt Alum,
Red Precipitate of Mercury, of each 1 drachm.

This composition was a favourite caustic application with Dr. Kirkland for fungous productions, and exuberant or large granulations. He was in the habit of sprinkling a little over the surface of the part, and of applying over it lint, with an external dressing of brown cerate.

DETERGENT POWDER.

For the purpose of cleansing foul ulcers, some surgeons sprinkle over the surface finely-powdered Myrrh; to which may be added a little Red Precipitate or Calomel, when the discharge is ichorous or thin. When attended with considerable pain or irritation, the following composition generally proves very beneficial:

Take of Myrrh, finely powdered, 3 drachms.
Calomel, prepared, 2 scruples.
Hemlock, finely powdered, 2 drachms.
Mix.

It is a common practice to cover the part with a cataplasm, either anodyne or astringent, as the state of the disease may indicate.

SOLUTIONS.

ASTRINGENT SOLUTION.

Take of Calcined Sulphate of Iron, 1 drachm.
Distilled Water, 8 ounces.

This Solution is of great use in hastening the cicatrization of ulcers, where that process is going on but slowly. It is also of service to sore nipples in women who give suck.

For both these purposes it is strongly recommended by Dr. Underwood, and others.

CAUSTIC SOLUTION.

Dissolve one scruple of Nitrate of Silver in half an ounce of Distilled Water.

This Solution forms a very efficacious application to that kind of ulcer, the cure of which is prevented by a succession of coats of coagulable lymph over its surface. The mode of applying it is by means of a bit of lint, fixed to the end of a probe. This being dipped into the liquid, is streaked round the extreme edges of the ulcer. In some painful ulcers, also, which resist the operation of common remedies, and which rather appear to be aggravated by the use of emollients, it will frequently prove serviceable. The strength of the solution may be augmented or diminished, according to circumstances. In many of the cases first mentioned, indeed, the light application of the caustic itself is required.

STIMULATING SOLUTION.

Take of Oil of Cloves, 1 drachm.
Alcohol, 1 ounce.
Mix.

This Solution of Oil of Cloves in Alcohol has been applied, upon lint, to carious bones, to quicken the process of exfoliation. Some surgeons dilute the oil with Castor Oil instead of Alcohol.

SUPPOSITORIES. — Remedies introduced into the rectum or vagina, with the view of allaying pain, or of constringing the parts. It is a common practice to make use of a suppository in cases of costiveness of infants, which chiefly act mechanically. For this purpose, a variety of soft articles are employed by nurses, which, by distending the lower part of the intestine, keep up a constant straining; and sometimes the efforts of the infant to expel it are so violent, and so long continued, as to occasion a very considerable afflux of blood into the vessels of the head, and

thereby disorder the brain, or occasion inflammation of the eyes. When there are no fæces in the rectum, the practice cannot prove of much, if any, service in moving the bowels; and, in infants of tender frames, the violent straining is capable of exciting serious mischief in the head. In cases of constipation, the injection of gruel, with a little manna, or common salt, or Epsom salt, dissolved in it, will act more beneficially, and cannot possibly do mischief. In cases of irritative ulceration, either in the rectum, prostate gland, or uterus, an anodyne and corrective suppository often proves very beneficial in allaying pain, and in suspending or curing the disease.

ANODYNE SUPPOSITORY.

Take of Morphine, from 1 to 3 grains.
Extract of Henbane, from 10 to 12 grains.—Mix.

This, introduced into the rectum, is an excellent remedy for allaying pain and irritation, attendant on ulceration or stricture of the rectum, or for irritative or inflammatory affections of the prostate gland, bladder, urethra, or uterus. In the latter case it may be likewise introduced into the vagina. It is also very beneficial in cases of retention of urine from spasms, and incontinence of urine from morbid irritability of the bladder not allowing of distension, and in allaying irritation attendant on stone. In cases of thickening of the coats of the rectum, or enlargement of the prostate gland, five or six grains of the Cineritious Mercury may be added.

OFFICINAL PREPARATIONS.

Some writers on domestic medicine have given directions for making tinctures, wines, spirits, and other officinal articles; but as they cannot be properly prepared without a sand-bath, and proper vessels for maceration, &c., and as they may be procured, properly made, at a cheaper rate than they can be made in small quantities, I shall only add to this department directions for those infusions and decoctions, which, on account of undergoing decomposition in a few days, are not kept by chemists or apothecaries, and which require no particular skill to make.

DECOCTIONS.— Decoctions differ from infusions only in the action of the water being assisted by a boiling heat. Although this increased heat may hasten the extraction of the medicinal virtue of many articles, it decomposes and dissipates all the volatile parts, in which the properties of many articles chiefly reside. Boiling, therefore, is only necessary for the solution of principles that are not volatile or altered by heat. Decoctions should be made in vessels sufficiently large to prevent any risk of boiling over, and should be continued gently, and without interruption.

The virtues of the productions of the vegetable kingdom employed in medicine, being imparted to water, either by boiling or

by infusion, decoctions and infusions are much prescribed by practitioners in preference to tinctures. Of these preparations the following are most in use:

DECOCTION OF WHITE HELLEBORE ROOT.

Take of White Hellebore Root, bruised, 1 ounce.
Water, 1 quart.

To be boiled till the water is reduced to a pint; then strain, and add,
Rectified Spirit of Wine, 2 ounces.

This decoction is employed as a lotion for the itch, which it frequently cures. It is exempt from the objections made to sulphur, ointment, and mercury.

DECOCTION OF ICELAND LIVERWORT.

Take of Iceland Liverwort, 1½ ounce.
Liquorice-root, sliced, 3 drachms.
Water, 1 quart.

After freeing the Liverwort from the green moss, and washing it in cold water, boil it in the water to a pint and a half, and strain while warm.

DECOCTION OF MARSH MALLOW ROOT.

Take of dried Marsh Mallow Roots, sliced, 3 ounces.
Raisins, stoned, 1 ounce.
Water, 3½ pints.

Boil the ingredients in the water till it is reduced to two pints, then strain off the liquor, and let it stand for two or three hours to settle.

This decoction is chiefly used in cases of gravel, strangury, and cough. As an *alterative* diet drink, I have found it very superior to the compound or simple Decoction of Sarsaparilla.

DECOCTION OF MEZEREON ROOT.

Take of Mezereon Root, bruised, 2 drachms.
Liquorice Root, sliced, 1 ounce.

The Mezereon is to be boiled till the water is reduced one half, and the Liquorice added a short time before it is taken from the fire.

This decoction, given from half a pint to a pint in twenty-four hours, has been found a serviceable auxiliary to mercury in correcting the system.

DECOCTION OF PERUVIAN BARK.

Take of Peruvian Bark, bruised, 1 ounce.
Water, 1¼ pint.

Boil for ten minutes in a covered vessel, and strain the liquor while hot.

DECOCTION OF QUINCE SEED.

Boil Quince Seed, two drachms, in a pint of Water gently, till the liquor becomes thick, and then strain it through linen.

This mucilage possesses properties somewhat different from that of Gum Arabic, particularly in not being so easily washed away from the part to which it is applied. Hence it is to be preferred as an ingredient in injections, and as a means of palliating the irritation of ulcers in the throat, rectum, &c.

In cases of ulceration of the stomach and bowels, the late Dr. Cheston of Gloucester was very partial to the Decoction of Quince Seeds; and in his practice I have frequently witnessed the good effects of it, when taken to the extent of a pint daily, in morbid irritability, and ulceration of the colon and rectum. It was also much prescribed by the late Dr. Baillie in similar cases.

COMPOUND DECOCTION OF SARSAPARILLA.

Take of the Root of Sarsaparilla, sliced and bruised, 6 ounces.
Bark of the Root of Sassafras,
Shavings of Guaiac wood,
Liquorice Root, of each, 1 ounce.
Mezereon, 3 drachms.
Distilled Water, 10 pints.

Macerate for six hours; then boil it down to 5 pints, adding, towards the end of the boiling, the Mezereon and Sassafras, and strain the liquor for use.

This decoction is an improvement on the once highly celebrated Lisbon Diet Drink, which, for some time after its first introduction into Great Britain, was kept a secret. In the dose of four and six ounces three or four times a day, it has been found serviceable in obstinate rheumatic affections, particularly when occasioned by the long use of mercury. It is also prescribed as an alterative in scrofula, schirrous affections of the womb, and cutaneous foulnesses. — (*See* ALTERNANTS, page 16).

DECOCTION OF SOAPWORT.

Take of the herb Soapwort, (fresh,) bruised, 6 ounces; or the dried Leaves, 4 ounces.
Water, 2 quarts.

To be boiled gently, till reduced to one quart.

This decoction, in the quantity of a pint to three pints or two quarts, taken in the course of twenty-four hours, in scrofulous or impetiginous affections, it is said, has been productive of more benefit than the Decoction of Sarsaparilla. In France it is highly esteemed as a powerful alterative.

INFUSIONS. — When the medicinal virtues of any substances chiefly reside in an essential oil, or in a volatile matter, extraction by infusion is preferred to decoction, as by the latter these active parts are evaporated. The process consists in pouring on the bruised substance, in a proper vessel, the liquor either hot or cold, and afterwards covering it over. The liquor should be slightly agitated, and, after standing the proper time, poured off or strained through fine linen. Maceration differs from infusion, in being continued a longer time, and can only be employed for substances which do not easily ferment or spoil. The following infusions are principally in use:

ALKALINE BITTER INFUSION.

Take of the Bitter Infusion, 8 ounces.
Salt of Wormwood, 20 grains.
— Mix.

This is to be taken in the same manner as the following infusion. In cases of indigestion, especially when acidity prevails in the stomach, this is a very excellent remedy.

BITTER INFUSION.

Take of Gentian Root, sliced, 1 drachm.
Dried Seville Orange Peel, 1½ drachm.
Fresh outer Rind of Lemon, ½ ounce.
Boiling Water, ½ pint.

Macerate for an hour, and strain for use.

This infusion is in very common use as a stomachic medicine, in the quantity of three table-spoonsful two or three times a day.

INFUSION OF BUCHU LEAVES.

Take of Buchu Leaves, ½ ounce.
Boiling Water, 1 pint.

Pour the boiling water on the leaves, and keep the vessel well covered for three hours; then strain off the liquor, and keep it well corked.

INFUSION OF CORSICAN MOSS.

Take of Corsican Moss, ½ ounce.
Boiling Water, 1 pint.

After being infused within the heat of the fire for ten or twelve hours, the liquor is to be strained off, and kept in a cool place.

This infusion, in the dose of a wine-glassful three times a day, or an hour and a half before each meal, Dr. Sully and Mr. Farr highly extol as a remedy for scirrhus.

INFUSION OF LINSEED.

Take of Linseed, 1 ounce.
Liquorice Root, 2 drachms.
Boiling Water, 2 quarts.

To be macerated for six hours, stirring the mixture with a spoon about every hour, in order that the mucilage of the seeds may be suspended.

This is a very useful beverage in cases of inflammation of the lungs, recent coughs, the measles, gravel, inflammation of the bladder, and strangury.

INFUSION OF RHATANY ROOT.

Take of Rhatany Root, 1 ounce.
Boiling Water, 1 pint.

Macerate for twenty-four hours, and strain through fine cloth.

This elegant form contains the active principles of the Rhatany root, and agrees much better with weak or delicate stomachs than either the powder or decoction of it. It is given in the quantity of a small wine-glassful, to which it is customary to add a tea-spoonful of the compound tincture of cardamom seeds.

INFUSION OF RHUBARB.

Take of Rhubarb Root, bruised, ½ ounce.
Boiling Water, ½ pint.
Spirit of Cinnamon, 1 ounce.

Macerate the Rhubarb in a close vessel with the water for twelve hours, then add the Spirit of Cinnamon, and strain the liquor.

This is a very excellent, and perhaps the best preparation of rhubarb, when designed as a purgative, as the virtue of the rhubarb is more readily imparted to water than any other liquor. This dose is from two to four table-spoonsful.

INFUSION OF ROSES.

Take of Red Rose Leaves, ½ ounce.
Boiling Water, 2 pints.
Vitriolic Acid, by weight, ½ drachm.
White Sugar, 1 ounce.

Macerate the rose leaves with the water in an earthen vessel (not glazed with lead) for four hours, then add the vitriolic acid, strain the liquor, and dissolve it in the sugar.

This is an excellent and efficacious medicine in hæmorrhages, either from the nose, womb, stomach, or lungs, in the quantity of three table-spoonsful every three or four hours.

INFUSION OF SENNA.

Take of Senna Leaves, 3 drachms.
Boiling Water, 5 ounces.
Coriander or Caraway Seeds, bruised, 1 drachm.

After standing for an hour in a covered vessel, strain off the liquor through fine cloth.

This is a very efficacious purge in the dose of three or four spoonsful. The Caraway or Coriander Seeds not only cover the ill flavour of the Senna, but also correct its griping quality. It should always be used fresh, as it is apt to decompose very quickly.

INFUSION OF VALERIAN.

Take of Valerian root, bruised, 1 ounce.

Infuse in three quarters of a pint of boiling water; when cold, strain off the liquor, and add 6 drachms of Compound Spirit of Lavender and three of Spirit of Sal Volatile. A wine-glassful may be taken three or four times a day, in nervous and paralytic disorders.

A CATALOGUE OF DRUGS,

WITH

Their Properties, Doses, &c., and Prices at which those of the best quality are retailed at the Medical Hall, 170. Piccadilly.

THE doses specified in the following List being such as are generally administered, should be increased or diminished, according to the *strength* of the patient, and the *age*, by the following Rule: — Two-thirds of the dose, from the age of 14 to 16. — One-half, from 7 to 10. — One-third, from 4 to 6. — One-fourth, to one of three years. — One-eighth, to one of a year. — It is customary to repeat the dose of an aperient medicine about every three hours till it operates, or to have recourse to a lavement, which, in cases of obstinate costiveness, is often preferable.

N.B. — Gr. stands for grain; dp. for drop; drm. for drachm; spf. for spoonful; w.-glass for wine-glass.

CATALOGUE OF DRUGS, WITH THEIR PROPERTIES, DOSES, AND RETAIL PRICES.

MEDICINES.	DOSES. Adults.	DOSES. Chn. from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices. Per ounce. £	s.	d.	Per Pound or Pint. £	s.	d.
ÆTHER	30 dps. to 1 dm.	8 dps.	camphorated julep	antispasmodic	asthma, cramp, and flatulence	0	1	0	0	13	0
ÆTHIOP'S MINERAL	15 to 30 gr.	6 grs.	honey, twice a day	alterative	scald head, cutaneous foulness	0	0	4	0	4	6
ALMONDS, Emuls.	a w.-glassful	1 tab.-spf.	every 2 or 3 hours	demulcent	strangury, cough		—		0	1	0
—— Oil of	1 to 3 drms.	30 drps.	honey, ditto	ditto	ditto ditto	0	0	3	0	3	6
ALOES, Socotrine	10 to 20 grs.	3 to 6 grs.	in pills or powder	purgative	obstinate costiveness	0	0	6	0	7	0
—— Tincture of	3 to 6 drms.	1 drm.	water	ditto	ditto and worms	0	0	4	0	4	6
ALUM POWDER	3 to 10 grs.	——	ditto, 3 times a day	astringent	flooding, chronic dysentery	0	0	1	0	0	8
AMBER, Oil of	8 to 10 dps.	2 dps.	honey, twice a day	antispasmodic	hysteric fits, hooping cough	0	0	6	0	7	6
AMMONIAC GUM	10 to 15 grs.	——	in pills, ditto	expectorant	chronic cough, asthma, &c.	0	0	8	0	9	0
—— Milk of	3 table-spf.	des.-spf.	3 times a day	ditto	ditto		—		0	2	0
ANTIMONIAL POWD.	from 3 to 5 gr.	2 grs.	honey	sudorific	inflammatory fever, pleurisy, &c.	0	0	9	0	7	0
—— WINE, (as an emetic)	2 to 4 drms.	2 drms.	water	emetic	——	0	0	3	0	3	6
—— WINE, (as an alterat.)	12 to 20 dps.	6 dps.	barley-water, twice a day	sudorific	St. Anthony's fire, cut. foulness	0	0	3	0	3	6
AROMATIC Confection	15 to 30 grs.	6 grs.	water, 3 times a day	astringent and cord.	purging, cramp	0	1	6	0	18	0
—— Species	5 to 10 grs.	2 grs.	water, ditto	stomachic	indigestion, flatulence	0	0	9	0	8	0
ASSAFŒTIDA Emulsion	3 table-spf.	1 tea-spf.	every 3 hours	antispasmodic	hysterics, asthma, hooping cough		—		0	2	0
—— Tinct. of	30 to 60 dps.	8 dps.	water, ditto	ditto	ditto ditto ditto	0	0	4	0	4	6
—— Vol. Sp. of	20 to 40 dps.	4 dps.	water, ditto	ditto	ditto and fainting	0	0	8	0	9	0
—— Pill	10 to 15 grs.	——	in pills, twice a day	ditto	ditto ditto	0	2	0	0	18	0
BALSAM of COPAIVA.	20 to 40 dps.	6 dps.	in honey, ditto	diuretic & balsamic	whites, gleets, gravel	0	0	6	0	7	6
—— of PERU	5 to 10 dps.	——	ditto ditto	stimulant	flatulence, asthma, gleets,	0	1	6	0	18	0
—— Traumatic	20 to 40 dps.	——	ditto ditto	ditto	ditto	0	0	8	0	9	0
—— TOLU, Tinct. of	30 to 60 dps.	——	ditto ditto	ditto and pectoral	ditto and chronic cough	0	0	6	0	7	0
BARK, Peruvian Powder	20 to 60 grs.	6 grs.	milk, 4 times a day	tonic	ague, indigestion, weakness	0	0	8	0	9	0
—— Decoction of	3 to 4 tab.-spf.	1 tab.-spf.	4 times a day	ditto	relaxation and weakness		—		0	1	6
—— Essential Salt of	5 to 10 grs.	2 grs.	Port wine, ditto	ditto	ditto ditto	0	10	0	7	0	0
—— Tincture of	2 to 4 drms.	——	water, ditto	ditto	ditto ditto	0	0	6	0	7	6

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices.					
	Adults.	Chn. from 2 to 4 years.				Per ounce.			Per Pound or Pint.		
						£	s.	d.	£	s.	d.
BARK, Tinc. of Huxham's	2 to 4 drms.	——	water, ditto	stimulant & pectoral	relaxation and weakness	0	0	6	0	7	6
—— —— Volatile...	1 to 2 drms.	——	ditto, ditto	ditto	indigestion, heartburn	0	0	6	0	7	6
BASILIC POWDER ...	20 to 25 grs.	6 grs.	honey, twice a week	vermifuge & purga.	worms, costiveness, dropsy	0	2	6	1	4	0
CALOMEL	1 to 2 grs.	1 gr.	pill, twice a day	alterative	venereal disease, foul ulcers, &c.	0	0	8	0	8	6
CAMPHOR	2 to 4 grs.	1 gr.	ditto ditto	antispasmodic	hooping cough, convulsive fits	0	0	8	0	8	0
—— —— Julep of	2 to 4 tab.-spf.	3 drms.	three times a day	ditto and febrifuge	nervous fever, ditto ditto		—		0	2	0
CANELLA ALBA, Powd.	4 to 8 grs.	——	mint water, ditto	stomachic	indigestion, flatulence	0	0	4	0	5	0
—— —— Tincture of	1 to 2 tea-spf.	——	water, ditto	ditto	ditto ditto	0	0	6	0	7	6
CARD. SEEDS, Tinct. of	2 to 3 drms.	——	ditto ditto	stimulant	ditto do. and cramp	0	0	6	0	7	0
—— —— Comp. ditto	2 to 4 drms.	——	camomile tea, ditto	stomachic	ditto ditto	0	0	6	0	7	0
CASTOR, Powdered	5 to 10 grs.	4 grs.	camphor. julep, ditto	antispasmodic	convulsive fits, nervousness	uncertain			—		
—— Tincture of	1 to 2 drms.	20 dps.	ditto ditto ditto	ditto	ditto ditto	0	1	0	0	15	0
CASTOR OIL	4 to 8 drms.	2 drms.	mint water	purgative	colic, costiveness	0	0	4	0	5	0
—— —— Cold expressed	4 to 10 drms.	2 drms.	ditto	ditto	ditto ditto	0	0	9	0	9	0
CASCARILLA POWD.	10 to 20 grs.	4 grs.	ditto, 3 times a day	stomachic	indigestion, weakness	0	0	6	0	6	6
——, Tinct. of.	1 to 3 drms.	20 dps.	water, 3 times a day	ditto	ditto ditto	0	0	4	0	4	6
—— —— Volatile do.	40 to 60 dps.	——	ditto ditto	ditto	gout, flatulence, heartburn	0	0	8	0	9	0
CATECHU, Tincture of..	1 to 2 tea-spf.	10 dps.	mint water, ditto	astringent	chronic looseness, flooding	0	0	6	0	7	6
CHALK, Prepared	10 to 15 grs.	6 grs.	ditto, 4 times a day	ditto	looseness, acidity	0	0	2	0	1	6
CAMO. FLOW. Pow. of.	10 to 20 grs.	6 grs.	mint wat. 3 times a day	stomachic & vermif.	indigestion, worms, &c.	0	0	6	0	6	6
CAM. & GING. Tinct. of	10 to 40 dps.	——	water, 3 or 4 times a day	stomachic	gout, cramp in the stomach	0	0	9	0	10	0
CINNAMON POWDER	5 to 10 grs.	2 grs.	ditto, 3 times a day	ditto	indigestion, flatulence, &c.	0	1	0	0	12	0
—— —— Essence of	3 to 10 dps.	1 dp.	water	stimulant	flatulency, colicky pains	0	5	0	3	0	0
—— —— Tincture of	3 to 4 drms.	20 dps.	ditto	astringent	looseness	0	0	6	0	7	0
COLUMBO POWDER.	10 to 20 grs.	4 grs.	mint wat. 3 times a day	stomachic	indigestion, chronic looseness	0	0	8	0	9	0
—— —— Tincture of..	1 to 3 drms.	15 dps.	ditto ditto	ditto	ditto ditto	0	0	4	0	4	6
CRAB'S CLAWS, prepar.	15 to 20 grs.	10 grs.	ditto, every 3 or 4 hours	astringent	purging, heartburn	0	0	3	0	3	0

MEDICINES.	DOSES. Adults.	DOSES. Chn. from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices. Per Ounce. £	s.	d.	Per Pound or Pint. £	s.	d.
CRETA. pow. with Opium	10 to 20 grs.	4 grs.	mint wat. every 3 or 4 h.	astringent	obstinate purging, and dysentery	0	1	0	0	10	0
CONTRAYERVA POW.	20 to 40 grs.	6 grs.	water, ditto	sudorific	recent colds, rheumatism	0	0	6	0	7	0
——————— Comp.	30 to 40 grs.	8 grs.	mint water, ditto	ditto and astringent	diarrhœa	0	0	6	0	6	6
CREAM OF TARTAR.	1 to 4 drms.	20 grs.	honey, every morning	aperient & alterative	inflammat. erupt. of the skin, &c.	0	0	2	0	2	4
COLOCYN. PILL, Comp.	10 to 20 grs.	——	occasionally	purgative	costiveness	0	1	4		—	
——————— EXT. Comp.	10 to 15 grs.	——	ditto	ditto	ditto	0	2	6		—	
——————— POWDER..	10 to 15 grs.	——	ditto	ditto	ditto	0	1	0	0	12	0
DOVER'S POWDERS..	10 to 20 grs.	3 grs.	in water	sudorific & anodyne	rheumatism, recent colds, &c.	0	2	6		—	
ELIXIR OF VITRIOL	10 to 12 dps.	——	ditto, twice a day	stomachic	indigestion, flatulence	0	0	6	0	7	0
ELECTUARY, Lenitive.	2 to 3 drms.	½ drm.	occasionally	gentle aperient	costiveness	0	0	3	0	3	6
EPSOM SALT.....	4 to 8 drms.	1 drm.	mint water	ditto	ditto	0	0	1	0	0	10
FOXGLOVE POWDER	½ to 2 grs.	——	ditto, twice a day.	diuretic and sedative	dropsy	0	0	6	0	5	0
——————— Tincture of..	10 to 40 dps.	——	dec. of liverw. 3 or 4 t. a d.	sedative	consumption, palpitation	0	0	6	0	7	0
GENTIAN, Tincture of....	1 to 2 drms.	——	water, ditto	stomachic	indigestion, flatulence, &c.	0	0	4	0	4	6
——————— Extract of.....	5 to 10 grs.	——	in a pill, twice a day	ditto	ditto ditto	0	1	0	0	8	0
GINGER POWDER.....	20 to 60 grs.	——	water, twice a day	stimulant	gout, indigestion, flatulence	0	0	4	0	4	6
——————— Lozenges of....	3 or 4	——	—— twice a day	ditto	flatulency	0	0	4	0	4	6
——————— Tincture of.....	1 to 2 drms.	——	water, ditto	ditto	ditto	0	0	6	0	6	0
GUAIAC GUM.....	5 to 15 grs.	——	in pill ditto	ditto and sudorific	chronic rheumatism, gout	0	0	6	0	6	0
——————— Vol. Tinct.	1 to 3 drms.	——	honey & wat. 3 ti. a day	ditto ditto	ditto ditto	0	0	6	0	7	0
HARTSHORN, Spirit of.	20 to 40 dps.	6 dps.	ditto ditto	stimulant	hysterics, convulsions	0	0	3	0	3	0
——————— Burnt prep.	20 to 40 grs.	10 grs.	mint water, twice a day	astringent	purging, acidity, heartburn	0	0	2	0	2	0
HOFFMAN'S ANO. Liq.	30 to 40 dps.	8 dps.	water ditto	antispasmodic	nervous fever, asthma, hysterics	0	0	8	0	8	6
HEMLOCK, Powdered....	2 to 3 grs.	1 gr.	mint water ditto	sedative	hooping cough, cancer	0	0	8	0	7	0
——————— Extract of....	2 to 3 grs.	½ gr.	ditto or pill, ditto	ditto	ditto ditto	0	0	8	0	7	0
HIERA PICRA.....	15 to 20 grs.	——	mint water	purgat. & stomach.	costiveness, flatulency	0	0	6	0	7	0
——————— Tinct. of..	2 to 4 drms.	30 dps.	water	do. do. & vermifu.	do. do. and worms	0	0	4	0	4	6

MEDICINES.	DOSES. Adults.	DOSES. Chn. from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices. Per Ounce. £	s.	d.	Per Pound or Pint. £	s.	d.
IODINE, Tincture of.....	10 to 30 grs.	——	{decoc. of marshmal. root, 2 or 3 ti. a day}	alterative	scrofula and wen	0	1	0	0	10	0
JALAP POWDER.....	20 to 30 grs.	——	mint water	purgative	costiveness	0	0	6	0	6	6
—— Tincture of.....	2 to 4 grs.	——	ditto	ditto	ditto	0	0	8	0	9	0
IPECACUAN POWD...	20 to 30 grs.	——	water	emetic	——	0	1	6	0	18	0
—— WINE...	4 to 8 drms.	2 drms.	ditto	ditto	——	0	0	5	0	5	6
IRON—*See* STEEL.											
KINO GUM, Tincture of.	2 to 3 drms.	15 dps.	mint wat. 3 or 4 ti. a day	astringent	looseness	0	0	4	0	4	6
LAVENDER, Com. Sp. of	30 to 80 dps.	15 dps.	water	cordial	fainting or lowness of spirits	0	0	5	0	6	0
LOGWOOD, Decoction of	a wine-glass.	1 ta.-spf.	3 or 4 times a day	astringent	looseness, dysentery	0	0	2	0	1	6
—— Extract of....	10 to 20 grs.	4 grs.	in cinnm. wat., 3 ti. a d.	ditto	ditto	0	0	10	0	8	0
MADDER Powder.....	10 to 60 grs.	——	mint water, 2 or 3 ti. a d.	deobstruent	chlorosis or green sickness	0	0	4	0	4	6
—— Extract of.....	10 to 20 grs.	——	ditto ditto	ditto and tonic	ditto and scrofula	0	1	6	0	16	0
MAGNESIA.....	20 to 40 grs.	10 grs.	mint water	absorbent	heartburn and acidity	0	0	3	0	3	6
—— Calcined.....	ditto	ditto	ditto	ditto	ditto ditto	0	1	0	0	12	0
MANNA	3 to 6 drms.	1 drm.	mint water, or tea	gentle aperient	costiveness	0	0	8	0	9	0
MERCURIAL PILL.....	6 to 12 grs.	——	in pills, twice a day	alterative	venereal disease	0	1	6		—	
MERCURY, Calcined.....	1 to 2 grs.	——	in a pill, ditto	ditto	ditto	0	3	0		—	
——, with Chalk...	5 to 10 grs.	4 grs.	honey, twice a day	alterative	scald head, euphony, &c.	0	0	4	0	4	6
MISLETOE POWDER.	20 to 60 grs.	10 grs.	mint water, 3 ti. a day	tonic	epileptic fits	0	0	4	0	4	6
MITHRIDATE.....	15 to 20 grs.	8 grs.	ditto ditto	astringent	purging, dysentery	0	0	3	0	3	0
MUSK	5 to 20 grs.	2 grs.	ditto ditto	antispasmodic	convulsions, locked jaw, &c.	uncertai.			—		
MURIATIC ACID.....	10 to 30 dps.	6 dps.	water, twice a day	alterative	scrofula, cutaneous eruptions	0	0	2	0	1	0
MYRRH POWDER.....	5 to 10 grs.	3 grs.	mint water, ditto	deobstruent	green sickness, weakness	0	0	3	0	2	0
—— Tincture of.....	1 to 2 drms.	15 dps.	water, 2 or 3 times a d.	ditto	ditto ditto	0	0	5	0	5	0
—— Emulsion	2 to 3 tab.-spf.	2 drms.	2 or 3 times a day	ditto expectorant	ditto ditto, and chronic cough	0	0	1½	0	1	6
NATRON, Prepared.....	10 grains.	5 grs.	mint wat., 2 or 3 ti. a d.	alterative	scrofula, heartburn	0	0	2	0	2	0

MEDICINES.	DOSES. Adults.	DOSES. Chn. from 2 to 4 years.	Proper Vehicles, &c.	Effects, &c.	Diseases proper for.	Retail Prices. Per Ounce. £	s.	d.	Per Pound or Pint. £	s.	d.
NATRON, Carbonated.....	20 to 40 grs.	10 grs.	water, 2 or 3 times a day	alterative	heartburn	0	0	5	0	5	0
NITRE POWD. Purified	5 to 20 grs.	4 grs.	barley water, ditto	diuretic and febrif.	strangury, heat of urine	0	0	1	0	1	0
——— Sweet Spirit of...	20 to 60 dps.	10 dps.	ditto ditto	ditto ditto	ditto ditto	0	0	6	0	7	0
NITRIC ACID.....	12 to 30 dps.	4 dps.	water ditto	tonic	diabetes, scrofula	0	0	3	0	3	0
NUTMEG, Spirit of.....	4 to 6 drms.	1 drm.	ditto	carminative	flatulence, cramp	0	0	4	0	4	6
OPIATE CONFECTION	10 to 20 grs.	5 grs.	bolus	ditto and opiate	purging, colic, &c.	0	0	8	0	9	0
OPIUM, Purified.....	1 to 2 grs.	——	pill	anodyne	restlessness, acute pains, &c.	0	3	0	—		
——— Tincture of.....	10 to 30 dps.	3 dps.	mint water	ditto	ditto ditto, &c.	0	0	8	0	8	6
OYST. SHELLS, Prepar.	10 to 20 grs.	8 grs.	mint water, 4 ti. a day.	absorbent & astring.	looseness, heartburn	0	0	3	0	3	0
PAREGORIC ELIXIR	1 to 2 drms.	20 dps.	barley water, ditto	anodyne	cough, asthma, cramp	0	0	5	0	6	0
PEPPERMINT, Ess. of	3 to 6 dps.	1 dp.	water	carminative	colicky pains, flatulency, &c.	0	2	6	1	11	0
POPPIES (White) Ex. of	5 to 10 grs.	1 gr.	in a pill	anodyne	spasms, acute pain, cough	0	1	6	1	1	0
——— Syrup of.....	2 to 4 drms.	a tea-spf.	water	ditto	ditto ditto ditto	0	0	3	0	3	6
QUASSIA, Tincture of....	30 to 60 dps.	10 dps.	ginger tea, 3 ti. a day	stomachic	indigestion, flatulency	0	0	4	0	4	6
RHATANY POWDER.	10 to 40 grs.	5 grs.	mint water, every 3 hrs.	tonic	ague, diabetes	0	1	0	0	14	0
RHATANY, Tincture of...	2 to 4 drms.	20 dps.	mint water, 3 ti. a day	stomachic	debility, whites, &c.	0	0	8	0	9	0
——— —— Compou. do.	ditto	ditto	ditto ditto	ditto and cordial	ditto ditto	0	0	8	0	9	0
——— —— Aromatic do.	ditto	ditto	ditto ditto	ditto	ditto ditto	0	0	9	0	10	0
RHUBARB POWDER..	20 to 30 grs.	5 grs.	in mint water	aperient	costiveness	0	2	6	1	8	0
——— Tincture of..	4 to 6 drms.	——	ditto	ditto & carminative	ditto, colic, &c.	0	0	5	0	6	0
——— —— Bitter ditto..	2 to 3 drms.	——	water twice a day	aperient & stomach.	indigestion, flatulence, &c.	0	0	5	0	6	6
——— Loz., with Ging.	two or three	one	twice a day	stomachic	ditto ditto	0	0	6	0	7	0
ROCHELLE SALT.....	6 to 12 drms.	2 drms.	mint water	aperient	costiveness	0	0	3	0	3	6
ROSES, Infusion of.....	1 to 2 oz.	3 drms.	2 or 3 times a day	stomachic & astring.	indigestion, flooding, &c.	0	0	2	0	1	6
——— Conserve of.....	1 to 2 drms.	½ drm.	ditto	ditto and pectoral	cough	0	0	2	0	2	0
SAFFRON, Tincture of...	1 to 2 drms.	40 dps.	water	cordial	lowness of spirits	0	1	0	0	10	0
——— —— Syrup of.....	2 to 3 drms.	a tea-spf.	ditto	ditto	ditto	0	0	4	0	5	0

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices.					
	Adults.	Chn. from 2 to 4 years.				Per Ounce.			Per Pound or Pint.		
						£	s.	d.	£	s.	d.
SALT, GLAUBER'S.....	6 to 12 drms.	1 drm.	mint water	purgative	costiveness, &c.	0	0	1	0	0	10
—— EPSOM, Purified.	6 to 8 drms.	1 drm.	ditto	ditto	ditto	0	0	1	0	0	10
—— CHELTENHAM	6 to 12 drms.	1 drm.	ditto	ditto	ditto	0	0	6	0	7	0
—— POLYCREST.....	1 to 3 drms.	——	ditto	cooling aperient	feverish heat	0	0	2	0	2	6
—— TASTELESS.....	6 to 12 drms.	1 drm.	in gruel or broth	gentle aperient	costiveness, &c.	0	0	5	0	5	6
—— OF TARTAR....	10 to 20 grs.	4 grs.	mint water	alkaline	heartburn, rickets	0	0	2	0	2	0
—— OF WORMWOOD	ditto	ditto	ditto	ditto	ditto ditto	0	0	2	0	2	0
SARSAPAR. POWDER	20 to 60 grs.	5 grs.	ditto, 2 or 3 times a day	alterative	scrofula, &c.	0	0	9	0	10	0
—— Comp. decoc.	3 to 4 oz.	1 oz.	3 or 4 times a day	ditto	ditto		—		0	3	0
SCAMMONY POWDER	10 to 20 grs.	3 grs.	mint water	strong purgative	obstinate costiveness	0	6	0		—	
—— Comp. do....	15 to 30 grs.	5 grs.	ditto	ditto	ditto	0	4	0		—	
—— Comp. with Calom.	15 to 25 grs.	4 grs.	honey	ditto, and vermifuge	ditto, worms, and dropsy	0	3	6		—	
SENNA, Infusion of.....	2 to 3 oz.	3 drms.	occasionally	purgative	costiveness and worms		—		0	1	6
—— Tincture of.....	6 to 12 drms.	——	water	ditto	ditto and colic	0	0	4	0	4	6
SOLUBLE TARTAR....	4 to 6 drms.	1 drm.	mint water	ditto	ditto and piles	0	0	3	0	3	6
SPERM. POWDER.....	1 to 2 drms.	20 grs.	honey, 3 or 4 times a day	demulcent	recent cough	0	0	3	0	3	6
SPIR. MINDERERUS's	2 to 4 drms.	1 drm.	mint water, ditto.	sudorific and cooling	ditto fever, pleurisy	0	0	2	0	2	4
—— of VIT. Sweet	20 to 40 dps.	8 dps.	ditto ditto	antispasm. & carmin.	nervous debility, flatulence, &c.	0	0	5	0	6	6
—— of NITRE, ditto	15 to 30 dps.	ditto	barley water	diuretic and febrifuge	strangury, gravel, fevers	0	0	6	0	7	6
—— SAL AMMON.	15 to 30 dps.	6 dps.	water	stimulant	hysteric and fainting fits	0	0	3	0	3	0
—— SAL VOLAT.	20 to 40 dps.	6 dps.	ditto	ditto	ditto ditto	0	0	6	0	7	0
—— SAL VOL. Fœtid	20 to 40 dps.	6 dps.	ditto	ditto	ditto ditto	0	0	6	0	7	0
SYRUP of W. POPPIES	2 to 4 drms.	1 drm.	2 or 3 times a day	anodyne	coughs, restless, fever	0	0	3	0	3	6
—— BUCKTHORN	2 to 4 drms.	1 drm.	mint water	strong cathartic	costiveness	0	0	2	0	2	0
—— GINGER.....	2 to 3 drms.	1 drm.	water	carminative	flatulence, cramp	0	0	3	0	3	0
SPONGE, Burnt	20 to 30 grs.	10 grs.	honey, twice a day	alterative	scrofula	0	1	6	1	0	0
—— Lozenges of.	one to three	one	twice a day	ditto	wen	0	1	0	0	10	6

CATALOGUE OF DRUGS, WITH THEIR PROPERTIES, DOSES, AND RETAIL PRICES.

MEDICINES.	DOSES. Adults.	DOSES. Chn. from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices. Per Ounce £	s.	d.	Per Pound or Pint. £	s.	d.
SQUILL, Powder	1 to 2 grs.	½ gr.	in a pill, twice a day	expect. and diuretic	dropsy, chronic cough	0	0	8	0	8	0
——— Oxymel	2 to 4 drms.	1 drm.	mint water, ditto	ditto ditto	ditto ditto	0	0	3	0	3	6
——— Tincture	15 to 30 dps.	10 dps.	ditto ditto	ditto ditto	ditto ditto	0	0	5	0	6	0
——— Lozenges of	three to six.	one	3 or 4 times a day	ditto ditto	ditto ditto	0	0	4	0	4	6
STEEL, Muriated Tinc. of	10 to 30 dps.	4 dps.	water, twice a day	tonic	rickets, worms, &c.	0	0	6	0	6	0
——— Wine of	3 to 6 drms.	1 drm.	ditto ditto	ditto	ditto ditto ditto	0	0	3	0	3	6
——— Salt of	1 to 3 grs.	half gr.	ditto ditto	ditto	ditto ditto	0	0	2	0	2	0
——— Prepared	10 to 40 grs.	2 grs.	honey, ditto	ditto	ditto ditto	0	0	2	—	—	—
——— Red Sulphate of	3 to 12 dps.	1 to 2 dps.	water, ditto	ditto	ditto ditto	0	0	4	0	4	6
SULPHUR, Flowers of	1 to 2 drms.	10 grs.	honey, once a day	alterative & aperient	eruptions, piles, &c.	0	0	1	0	0	10
——— Milk of	ditto	ditto	ditto ditto	ditto	ditto ditto ditto	0	0	3	0	3	6
TARTAR, Emetic Crystal	1 to 2 grs.	¼ gr.	water	emetic	—	0	0	8	0	7	0
TIN POWDER	20 to 40 grs.	10 grs.	honey, every morning	vermifuge	worms	0	0	4	0	3	0
TINCT. OF ALOES	3 to 6 drms.	1 drm.	water	purgative	costiveness, worms	0	0	4	0	4	6
——— ASAFŒTIDA	30 to 60 dps.	5 dps.	ditto, twice a day	antispasmodic	hysterics, hooping cough	0	0	6	0	7	0
——— BENZOIN	15 to 30 dps.	6 dps.	honey	stimulant	flatulence, asthma	0	0	6	0	7	0
——— BUCHU LEAV.	2 to 3 tea-sp.	—	decoct. marsh. root	anti-irritant, &c.	irritation of bladder, &c.	0	1	0	0	12	0
——— CANTHARID.	10 to 30 dps.	5 dps.	barley water, twice a day	diuretic	hooping cough	0	0	4	0	4	6
——— CARDAMOMS	2 to 4 drms.	½ drm.	camomile tea	stomachic	indigestion, flatulence	0	0	6	0	7	6
——— COMP. DITTO.	ditto	ditto	ditto	ditto	ditto ditto	0	0	4	0	4	6
——— CASCARILLA.	1 to 3 drms.	15 dps.	water	ditto	ditto ditto, gout	0	0	4	0	4	6
——— CATECHU	1 to 2 drms.	15 dps.	mint water, 3 times a day	astringent and stom.	purgings, relaxation	0	0	6	0	7	6
——— OF COLOMBO	1 to 2 drms.	20 dps.	ditto ditto	stomachic	indigestion, &c.	0	0	4	0	4	6
——— PERUV. BARK	2 to 4 drms.	—	ditto ditto	ditto	ditto ditto	0	0	6	0	7	0
——— Hux	2 to 4 drms.	—	ditto ditto	stoma. and cordial	ditto ditto	0	0	6	0	7	0
——— Volat.	1 to 2 drms.	—	water ditto	ditto ditto	ditto ditto	0	0	6	0	7	6
——— IRON, Muriated	10 to 30 dps.	6 dps.	ditto ditto	tonic	rickets, worms, &c.	0	0	6	0	6	0

CATALOGUE OF DRUGS, WITH THEIR PROPERTIES, DOSES, AND RETAIL PRICES.

MEDICINES.	DOSES. Adults.	DOSES. Chn. from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases proper for.	Retail Prices. Per Ounce. £	s.	d.	Per Pound or Pint. £	s.	d.
TINCT. GENTIAN.....	2 to 3 drms.	——	water 3 times a day	stomachic	indigestion, flatulence	0	0	4	0	4	6
——— GUAIAC GUM	30 to 60 dps.	——	honey, twice a day	stimulant	ditto, gleet, whites, &c.	0	0	6	0	7	0
———, Volatile	1 to 2 drms.	——	water ditto	stim. and sudorific	ditto, rheumatism, &c.	0	0	6	0	6	6
——— JALAP	2 to 4 drms.	½ drm.	mint water	brisk purgative	obstinate costiveness	0	0	6	0	6	6
——— LAVEN. Comp.	30 to 80 dps.	——	water	cordial	lowness of spirits, fainting	0	0	6	0	7	6
——— MYRRH	1 to 2 drms.	——	ditto, twice a day	strengthening	green sickness, &c.	0	0	4	0	4	6
——— OPIUM.....	10 to 30 dps.	——	mint water	anodyne	spasms, pains, &c.	0	0	8	0	8	0
——— Acetic....	20 to 40 dps.	4 dps.	ditto	ditto	ditto, coughs, &c.	0	3	0	1	10	0
——— RHAT. ROOT.	2 to 4 drms.	30 dps.	ditto, three times a day	stomachic	indigestion, &c.	0	0	8	0	9	0
———, Comp.	ditto	——	ditto ditto	ditto and cordial	ditto ditto	0	0	8	0	9	0
TOBACCO, Extract of.....	2 to 4 grs.	½ gr.	in a pill, twice a day	anodyne	hooping cough	0	3	0	——		
TURPENTINE, Venice...	10 to 15 grs.	——	honey ditto	diuretic, &c.	gleet, fluor albus, gravel	0	0	3	0	3	0
——— Spirit of	15 to 20 dps.	——	ditto ditto	ditto	gleet, gravel, &c.	0	0	2	0	1	0
——— Chio.....	10 to 15 dps.	——	ditto ditto	ditto	ditto ditto	0	0	6	0	6	0
VALERIAN POWDER	20 to 30 grs.	6 grs.	mint water, ditto	anti-nervous	nervous head-ache, &c.	0	0	3	0	3	0
———, Tincture of..	1 to 3 drms.	20 dps.	water, three times a day	ditto	ditto	0	0	4	0	4	6
——— Volatile ditto	40 to 80 dps.	——	ditto	ditto	lowness of spirits, &c.	0	0	6	0	7	0
VITRIOL, Acid Elixir of	8 to 15 dps.	4 dps.	camomile-tea, tw. a day	stomachic	indigestion, flatulence, &c.	0	0	4	0	4	6
VITRIOLIC ACID, dil.	8 to 15 dps.	ditto	ditto	ditto	ditto ditto ditto	0	0	2	0	1	6
WORMW. Conserve of....	1 to 2 drms.	½ drm.	twice a day	ditto and vermifuge	indigestion, worms, &c.	0	0	3	0	3	6
——— Salt of.....	15 to 20 grs.	4 grs.	mint water ditto.	alkaline	heartburn, rickets	0	0	2	0	2	0
WINE, Antimonial	2 to 4 drms.	1 drm.	water	emetic	——	0	0	3	0	3	0
——- of IPECACUAN	4 to 8 drms.	2 drms.	ditto	ditto	——	0	0	4	0	3	6
——- of RHUBARB....	6 to 12 drms.	——	mint water	aperient	costiveness, indigestion	0	0	6	0	6	6
——- of STEEL.....	3 to 6 drms.	1 drm.	ditto, twice a day	tonic	green sickness, whites	0	0	3	0	3	6

ARTICLES OF APPROVED EFFICACY,

NOT INCLUDED IN THE CONTENTS OF THE

FAMILY MEDICINE CHEST.

LIME-WATER.—This very useful article is made in the following manner:—

Take of Quick-lime, - - 4 ounces.
Pure Water, - - 6 pints.

Mix, and set them aside in a *covered earthen* vessel for one hour, then pour off the clear water, and keep it in bottles well corked for use.

When weakness of the stomach is accompanied with acidity and flatulency, this article affords an excellent auxiliary vehicle, in the quantity of a wine-glassful, for taking the compound tincture of ginger and camomile, No. 7., or the aromatic tincture of rhatany root.

Lime-water being capable of dissolving slime or mucus in the stomach and intestines, a redundancy of which affords a nidus or lodgment for worms, will considerably promote the efficacy of vermifuge medicines, in the dose of a tea-cupful two or three times a day.—(*See* BASILIC POWDER.)—Lime-water has been much celebrated as an alterative in scrofula and rickets: in the latter case it has not supported its character, while in the former it is still recommended. The good effects produced by it, in such cases, probably arise from its neutralizing acidity in the stomach, and promoting digestion. In cases of purging, where the object is more to restrain than entirely to check it, lime-water will answer better than the chalk or cretaceous mixture. It may be given in the following form:—

Take of Lime-water, - - 6 ounces.
Compound Tincture of Cardamom Seeds, ½ ounce.
Liquid Laudanum, - - 30 drops.
White Sugar, - - ¼ of an ounce.—Mix.

Two or three table-spoonsful to be taken three or four times a day.

The addition of a little lime-water to milk makes it sit easy on weak stomachs; and with this admixture, in the proportion of a table-spoonful to half a pint, invalids have been able to take milk, after it has disagreed in every other form.

For weakly rickety children, particularly when the intestines are irritable, and the bowels enlarged, lime-water is a very valuable medicine.—(*See* RICKETS.)

The late Dr. Hutchinson, of Dublin, was very partial to an infusion of the Peruvian bark in lime-water, in cases of general debility of the system from bad digestion, in advanced stages of scrofula, and in rickets. Sir John Jervis speaks in high terms of this combination, from the effects it produced in several cases of debility which had been considered by medical men of eminence hopeless.

BARLEY-WATER.

Take of Pearl-barley,	- -	2 ounces.
Water,	- - -	5 pints.

First wash the barley with some cold water, then boil it a short time with half a pint of water, to extract the colouring matter; throw this away, and put the barley thus purified into five pounds of boiling water, which is to be boiled down to one half, and then strained for use.

The compound barley-water, an excellent pectoral drink, is made in the following manner:

Take of Barley-water, prepared as above,	-	2 pints.
Figs, aliced,	- -	2 ounces.
Liquorice Root, sliced and bruised,		½ ounce.
Raisins, stoned,	- -	2 ounces.
Distilled Water,	- -	1 pint.

Boil to two pints, and strain.

These liquors afford a very excellent diluting beverage in cases of acute disease, the former in inflammatory fevers, and the latter in inflammatory attacks of the chest, as pleurisy and inflammation of the lungs, recent coughs, &c. As their efficacy depends on their free use, it is important that they should be prepared so as to be elegant and agreeable to the palate: for this reason, the directions above have been inserted in the London Dispensatory, and the several circumstances which contribute to their elegance particularized, as the previous washing of the barley, and extraction of its colouring matter.

The addition of a little lemon or orange juice, or currant jelly, will take off the raw taste of barley-water, and, in most instances, promote its efficacy. However trivial medicines of this class may appear to be, they are of greater efficacy in the cure of *acute* diseases than many other elaborate preparations.

ALMOND EMULSION.

Take of Sweet Almonds,	- -	6 drachms.
White Sugar,	- -	2 drachms.
Pure Water,	- -	1 pint.

The Almonds to be first blanched, by infusing them in boiling water, and afterwards peeling them. They are then to be well beaten in a marble mortar, with the sugar, to a smooth pulp, when the water is to be added by degrees, and the rubbing continued

till they are well blended, when the mixture should be passed through fine muslin for use. Great care should be taken that the almonds are free from any rancid taste.

Trifling as this emulsion may appear, it is the most valuable medicated beverage we possess, and in cases of strangury,—inflammations of the lungs, bowels, kidneys, ureters, bladder, and urethra,—pleurisy, recent coughs, and pulmonary consumption, is very superior to barley-water, or linseed-tea. It may be taken in the same manner as directed for the preceding article (Barley-water).

For the coughs of children, and irritation of the bowels, arising from teething, or obstructed perspiration, this emulsion, with the compound tragacanth powder, in the proportion of a drachm to a pint, is an excellent drink; and in the quantity of twelve ounces, or a pint, in the course of the day, will nearly supply the place both of medicine and diet; for it not only quiets the system, but also nourishes it.

The bitter almond has lately been employed by Dr. Sully, and other eminent practitioners, in preference to the sweet almond, on account of containing a small proportion of the Prussic acid, which considerably promotes its effects in allaying fever or inflammatory excitement of the nervous system.

RHATANY ROOT, (*Krameria Triandria*).—This root, the produce of Peru (first introduced into the practice of medicine in this country by myself, and lately admitted into the Pharmacopœia of the London Royal College of Physicians), is now very generally employed throughout Europe as a tonic medicine; and, in consequence of being more grateful to the palate and stomach than Peruvian bark, many patients have been able to persevere in its use that could not take Peruvian bark in any form.

In the cure of intermittents, it has been very successful. It possesses an astringent and bitter quality, so grateful to the palate, that the wine manufacturers in Portugal have long used it for the purpose of enriching Port wine; and from the quantity used by them, it is not improbable that the astringent property of that wine is principally derived from it.

From the success that has uniformly attended the exhibition of this medicine, I can confidently assert, that it is a most valuable restorative, and very superior to any other of the class of vegetable tonics in a variety of diseases of debility.

In all diseases that require the use of a tonic medicine, the rhatany root may be used in the same manner as directed for the Peruvian bark; but as it is somewhat stronger, a less dose will suffice: fifteen grains of the powder may be considered equal to twenty of the best Peruvian bark.

Of this root, the same preparations are kept as of the Peruvian bark; viz. the powder, the extract, and the simple, aromatic, and compound tinctures.

The *extract*, which is made by inspissating the expressed juice of the root in the heat of the sun, (by the natives of South America) possesses, in great perfection, the medicinal properties of the root, and may be taken, in the form of pills, to the extent of five or ten grains, twice a day.

The *powder* may be taken from ten to thirty grains.

The *compound tincture of rhatany* is a pleasant and efficacious stomachic; and, in the dose of two tea-spoonsful in a little water, three or four times a day, will prove an admirable remedy for indigestion and its consequences, as flatulency, heart-burn, cramp in the stomach, nervous irritability, &c.

The *simple tincture of rhatany* is much recommended by the most eminent dentists in England and France, as a lotion (with an equal quantity of rose-water) for constringing the gums, and thereby preserves them from caries, and renders loose ones more firm in their sockets.—(*See* PREPARED ARECA CHARCOAL.)

The following prescription has been found very successful in cases of indigestion of elderly people, attended with general debility and œdematous swelling of the legs; and also for fluor albus:

Take of Foreign Extract of Rhatany Root,		1½ drachm.
Sweet Spirit of Nitre,	-	3 drachms.
Tincture of Cardamom Seeds,		6 drachms.
Infusion of Buchu Leaves,	-	7 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

BUCHU LEAVES (*Diosma Crenata.*)—These leaves have been from time immemorial held in great estimation by the natives of the Cape of Good Hope, as a remedy for a great variety of diseases, particularly those of membranes, and as an external application, in the form of fomentations and cataplasms, for contused wounds and rheumatic pains. Of late years they have been much used in this country, as a remedy for morbid irritability of the bladder, prostate gland, spasmodic stricture, irritative gleet, fluor albus, and morbid irritation of the rectum, &c. There are several species of this shrub, but that termed "Diosma crenata" is most esteemed for its medicinal properties. The virtues of the leaves are imparted to boiling water by infusion, and also to proof spirit.

The saturated tincture of the buchu leaves is generally preferred to any other preparation, in irritative affections of the rectum, bladder, or urethra. This tincture, in the dose of two to three tea-spoonsful three or four times a day, in a wine-glassful of the decoction of marshmallow root, is a most valuable remedy

for the diseases specified above. The infusion of the leaves is an efficacious remedy for the gravel, and general nervousness of the system. In the latter, when attended with indigestion and flatulence, the following mixture has proved very beneficial:

Take of Infusion of Buchu Leaves, - - - 7 ounces.
Tincture of Musk Seeds, - - - 1 ounce.
Compound Spirit of Ammonia, (Edinburgh Pharm.) 2 drachms.
Mix. — Two table-spoonsful to be taken two or three times a day.

AMMONIATED TINCTURE OF COLCHICUM SEEDS. — Ample experience has proved, that this preparation is the most speedy, effectual, and safe remedy for acute rheumatism, and for shortening the paroxysm or diminishing the anguish of regular gout, that has been discovered. Dr. Williams, of Ipswich, has published several cases of rheumatism of long standing, which had resisted the most active remedies, in which a few doses of this preparation succeeded in effecting a cure. In his reports of its efficacy, the Doctor observes:— "I cannot contemplate an extensive use of it in many painful diseases, besides chronic rheumatism, without entertaining the hope and belief, that we have at length found the happy desideratum,— a powerful, yet mild medicine, capable of substituting calmness, tranquillity, and balmy sleep, in the place of pain, weariness, and restless nights; — a renovation of long-lost limbs, and comparatively robust health, in lieu of feebleness and emaciation;— in a word, affording to the poor, as well as the rich, the cherishing prospect of prolonging life, and, during its continuance, an oblivion of many distressing pains."— The dose is from one to two tea-spoonsful at bed-time, in a glass of weak brandy and water (warm), and one tea-spoonful, between breakfast and dinner, in a wine-glassful of peppermint water. When the complaint is attended with general debility and symptoms of indigestion, as flatulence, loss of appetite, &c., two tea-spoonsful of the compound tincture of rhatany root may be taken with each dose. If it should disturb the bowels, five drops of laudanum may be added to the night-dose, and about ten grains of the cordial confection to each dose.

In cases of irregular gout, and of general nervousness of gouty subjects, this tincture has been very successfully administered in small doses at bed-time, in a little weak brandy and water. In such cases, the quantity of fifteen to thirty drops has succeeded in procuring refreshing sleep, after opium and its officinal and empyrical preparations, as laudanum, black drop, sedative liquor of opium, &c., had totally failed. The late Sir Joseph Banks was in the habit of taking twenty-five drops of a similar preparation every night at bed-time for several years; and he had no doubt of its composing effects having considerably prolonged his life.

In gouty subjects, whose vital powers have been greatly impaired by frequent or violent paroxysms, by indulgence in spirituous or vinous liquors, or in savoury dishes, or by any other cause, and especially when the stomach does not perform its office, and general debility prevails (indicated by swelling of the legs, coldness of the extremities, pallid skin, inability to retain the urine, &c.), this tincture and every other preparation of the colchicum seeds or root are improper.

OXYMEL OF COLCHICUM SEEDS.—This oxymel is a very valuable remedy for asthma, and winter or consumptive cough. It promotes expectoration, abates cough, quiets the nervous system, checks the velocity of the circulation, and reduces fever. The dose, in cases of asthma, or chronic cough, is from two to three tea-spoonsful two or three times a day, in a vehicle which the state of the stomach, or of the general health, may indicate; *i. e.* if the strength of the system be much reduced, or the stomach disordered, it should be taken with a tonic medicine, as a decoction of the Iceland moss, or infusion of horehound; or with a tea-spoonful of the compound tincture of rhatany root, or gentian. If the general health should be good, it may be taken with the decoction of pearl barley. In cases of asthma of elderly people, attended with œdematous swelling of the legs, and symptoms of effusion of serum in some part of the chest, the following mixture has proved very beneficial:

Take of Oxymel of Colchicum Seeds,	-	1 ounce.
Tincture of Muriate of Iron,	-	40 drops.
Hoffman's Anodyne Liquor,	-	3 drachms.
Infusion of Buchu Leaves,	-	7 ounces.

Three table-spoonsful to be taken three times a day.

OXYMEL OF THE HEDGE HYSSOP.—This preparation of the hedge hyssop has lately been found very beneficial in pulmonary consumption. The hedge hyssop possesses the peculiar property of allaying morbid irritation, quieting the circulation, promoting digestion, and keeping up a regular discharge from the bowels. The oxymel also facilitates expectoration and allays cough, and has effected more in consumption of the lungs, asthma, and winter cough, than any other medicine. —(*See* TREATMENT OF CONSUMPTION AND ASTHMA.)

TINCTURE OF LUPULINE.—This tincture, which is strongly impregnated with the medicinal virtues of the hop, has lately been much recommended by some eminent practitioners of America and this country, in cases of indigestion from morbid irritability, or sensibility of the stomach, generally occurring in gouty or nervous subjects, and those who keep up an excess of irritability in the stomach, by an abuse of vinous or spirituous liquors, or of savoury dishes. In such cases it is common to

prescribe a tea-spoonful of this tincture, in a wine-glass of a solution of the carbonate of soda, two or three times a day. The solution is made by dissolving six drachms of the carbonate of soda in a wine-quart of water. In cases of the irritative or gouty indigestion of elderly people, this tincture should be administered with an astringent tonic and an aromatic, as the following composition:

Take of Tincture of Lupuline, - -	1 ounce.
Compound Tincture of Rhatany Root, -	2 ounces.
Aromatic Spirit of Ammonia (Edin. Pharm.)	3 drachms.
Liquor of Potass, - - - -	3 drachms.

Mix.—Three tea-spoonsful to be taken three times a day, in a wine-glass of water.

ALCALINE TINCTURE OF FUMITORY.—Fumitory has been highly recommended by physicians of the first authority, as a powerful corrector of scrofulous and scorbutic habits, and also to remove obstructions of the liver and other viscera, and to deterge the skin. The late Professor Cullen, of Edinburgh, was very partial to this plant, and he states, that he found it very useful in many cases of indigestion, cutaneous foulness, inactivity of the liver, and particularly in clearing the skin in many instances of cutaneous affections resembling lepra. The leaves have a peculiar bitter saline taste, and the extract obtained from them is a fine aromatic bitter. This tincture (made by dissolving the alcaline extract of the leaves and root in brandy) is so strongly impregnated with the virtues of the plant, that two tea-spoonsful are a sufficient dose, which may be taken twice a day in a glass of cold water, viz. two hours before, and three hours after dinner. It has been found to succeed in those complaints of the stomach attended with heartburn and flatulence, and foulness of the skin, after the Peruvian bark had failed, and to be as efficacious in removing obstructions of the liver as the blue pill, or any other mercurial preparation.

SOLUTION OF ACETATE OF MORPHINE.—This preparation of opium has been lately introduced into the practice of physic as a *direct* anodyne. It is not only more certain in allaying nervous irritation, and in procuring sleep, than opium, or any other preparation of it; but its composing and soporific effects are not followed, like those of opium or its preparations, by head-ache, or any disorder of the stomach or nervous system. The sleep it produces is sound and refreshing, which cannot be said of any other opiate. The disturbed sleep produced by opium or any other vegetable anodyne, and the disorder of the stomach, brain, and the whole nervous system, which almost uniformly follows the exhibition of opium and its officinal and empirical preparations, as laudanum, the black drop, the sedative liquor of opium, &c. &c., are attributed to the constituent

part of opium termed *narcotin*, from which the solution of the acetate of morphine is entirely exempt. The dose of the solution of acetate of morphine is from six to twelve drops. — (*See* MORPHINE.)

TINCTURE OF MUSK SEEDS. — This tincture has lately been very successfully administered in the dose of three or four tea-spoonsful three times a day, in a wine-glass of camphorated mixture, in cases of general nervous irritability, and the variety of palsy termed *paralysis agitans*, or paralytic tremours, lowness of spirits, nervous head-ache, palpitation of the heart, and hypochondriacism. — (*See* NERVOUS MIXTURE, p. 113.)

Dr. Hassel, an eminent physician of Boulogne sur Mer, who has given this tincture an extensive trial, says that he has found it a most valuable nervous tonic in a great variety of diseases of debility.

ST. JOHN'S BEAN. — A decoction of the pods of the carob, termed St. John's Bean, has been long held by the natives of Malta as a sovereign remedy for recent cough and incipient consumption of the lungs. It certainly allays thirst, promotes expectoration, abates fever, and quiets cough, and is therefore, at least, preferable to barley-water, or the pectoral drinks in common use. The decoction is made by gently boiling three ounces of the pods (sliced or bruised) in three pints of water, till reduced to a quart, of which a large wine-glassful should be taken four or five times a day. The oxymel of it has lately been much recommended in this country, in cases of asthma, winter-cough, and incipient consumption. The dose is from one to two table-spoonsful three times a day, in a wine-glassful of the decoction.

SULPHUREOUS PURGATIVE SALT. — Two drachms of this article (sold under the name of Harrowgate Salts), dissolved in half a pint of water, operate very pleasantly on the bowels, and produce the same beneficial effects on the skin, in gouty and rheumatic habits, as are attributed to the native sulphureous water of Harrowgate. It has been found very beneficial in cases of inflammatory or irritative piles, attended with constipation, and in expelling the small thread-worms termed ascarides.

SATURATED TINCTURE OF CUBEBS. — This tincture, taken in the quantity of two tea-spoonsful in a wine-glass of barley-water three times a day, is a valuable remedy for fluor albus, gleet, and debility of the bladder. In case of general debility of the system, a tea-spoonful of the compound tincture of rhatany root may be added to each dose. This latter composition is also an excellent remedy for the indigestion of elderly people.

ASARABACCA SNUFF. — This powder, the basis of which is the asarabacca herb, is a most excellent cephalic. A few grains sniffed up the nostrils produce a considerable discharge of mucus from the internal surface, and sneezing, by which the most obstinate head-ache, rheumatic tooth-ache, complaints of the eyes (particularly gutta serena, and weakness of sight), and paralytic and other complaints, attended with stupor or drowsiness, have been effectually cured. Geoffroy states, that after sniffing up four or five grains of this powder in an evening, he has found the discharge from the nose to continue for three days together; and this esteemed author observes, that it so effectually clears the head, and rouses the energy of the brain, that it has cured palsy of the tongue, and deafness. It is more efficacious in these complaints than the powder sold under the name of Cephalic Snuff, which is a compound of herbs of little or no medicinal virtue. — (*See* ERRHINES, p. 32.)

CITRIC ACID WITH CARBONATE OF SODA. — On dissolving a small tea-spoonful of this composition in a tumbler of water, an effervescence, with a considerable evolution of carbonic acid gas, takes place, during which state it should be drank. It is more pleasant and cooling than soda water, and, being slightly aperient, is more beneficial in cases of indigestion and torpidity of the bowels and liver, and in those affections of the stomach, &c. which arise from a long residence in a hot climate, and from the too free use of wine and spirituous liquors.

THE LETTUCE LOZENGE. — This lozenge is prepared according to the directions given by Dr. Duncan, sen. of Edinburgh, Professor of Medicine, &c. &c. It is composed of the inspissated white juice of the garden lettuce, extract of liquorice, gum arabic, tolu, and ipecacuan powder. Dr. Duncan highly extols this lozenge in cases of cough, consumption, &c. The property of the garden lettuce, in allaying irritation, was known to the immortal Galen; and the experiments of Dr. Duncan, sen. satisfactorily prove that it possesses the very peculiar powers of subduing irritation of the internal membrane of the windpipe and air vessels, which gives rise to cough, wheezing, and asthma; of promoting expectoration, exciting salutary perspiration, affording great facility of breathing, and procuring sleep without disordering the head. Such a medicine combined with tolu, ipecacuan, liquorice, &c., is, no doubt, a most valuable remedy in cases of winter or constitutional cough.

CAMPHORATED IPECACUAN LOZENGE. — This composition has been lately highly extolled by the celebrated Drs. Laennec and Muller, as a remedy for spasmodic asthma, winter cough, and difficulty of breathing of elderly people. Dr. Muller contends, that the camphor, by being gradually dis-

solved in the mouth and swallowed with the saliva, more effectually allays the irritation of the nerves of the upper part of the gullet, windpipe, &c., than when immediately conveyed into the stomach, either suspended in water, or in the form of pill. They direct one or two to be taken three or four times a day. Dr. Muller particularly recommends their use during foggy weather.

CROTON OIL. — This oil is obtained by expression, from the seeds of the croton tiglium: it is so powerful a purgative, that one drop generally acts violently on the bowels; hence, in obstinate cases of constipation, attendant on what is termed the Devonshire colic, or the colic of painters, and in some cases of introsusception, it is a very valuable medicine. In cases of apoplexy, when the patient has not the power of swallowing, two drops rubbed on the tongue have produced copious fæcal evacuations, and three drops rubbed over the navel have had the same effect. It is generally given with the almond emulsion, made with peppermint water in lieu of common water. Some practitioners recommend it to be given combined with Castile soap, which, they contend, promotes its purgative effects by rendering it miscible with the contents of the stomach. The following formula, recommended by Dr. Coley of Cheltenham, for the exhibition of this active purgative, was published in the Gazette of Health.

Take of Croton Oil, - - 4 drops.
Dried Castile Soap, - - 1 scruple.
Oil of Cloves, - - - 2 drops.

Mix and divide into eight pills. Two or three to be taken for a dose. The dose of three drops of croton oil has produced inflammation in the stomach.

A Dr. Nimmo recommends a tincture of croton, made by dissolving eight drops of the oil in an ounce of alcohol, as the best form for exhibiting it. The following is a copy of the Doctor's favourite prescription:

Take of the Tincture of Croton, - - - ½ drachm.
Simple Syrup and Mucilage of Gum Arabic, of each 2 drachms.
Distilled Water, - - - - ½ ounce. — Mix.

"After swallowing a little milk," says Dr. N., "take this draught quickly, and wash it down with the same diluent."

ESSENTIAL OILS OF BUCHU LEAVES AND OF CUBEBS. — These articles are much recommended in affections of the kidneys, bladder, and urethra, for which the buchu leaves and cubebs are employed. Their chief recommendation is, the dose of each being only from eight to twelve drops, they do not oppress the stomach. They have been found most beneficial in cases of gravel and other morbid secretions of the kidneys, fluor

albus, gleet, incontinence of urine from debility, and dropsy from inactivity of the kidneys, &c. They may be taken in the decoction of marshmallow root, with which they readily mix, when previously dissolved in sweet spirit of nitre. The following is a copy of a favourite formula:

Take of Essential Oil of Buchu Leaves, or
Essential Oil of Cubebs, - - 1 drachm.
Sweet Spirit of Nitre, - - 7 drachms.

Mix.—A small tea-spoonful to be taken three times a day in a large wine glass of decoction of marshmallow root.

PREPARED ARECA CHARCOAL. — The properties of charcoal, as a dentifrice, were first noticed in this work, under the title of *Carbonic Powder*; since which it has been very generally employed for the purpose of cleaning the teeth.

The areca nut (commonly called betel nut), well charred and finely levigated, is, no doubt, a very innocent and most valuable tooth-powder. It gives the enamel a beautifully healthy white appearance, destroys the offensive effluvia arising from carious teeth, and will not only prevent caries, but even arrest its progress after it has taken place; and it is worthy of remark, that people, who had been great sufferers from tooth-ache, have not experienced the least relapse after the regular use of this powder. It is likewise very efficacious in removing the cause of unpleasant tastes in the mouth, and for cleaning the tongue in cases of putrid fever, sore throat, and indigestion. The charcoal, prepared from the areca nut, has been held in high estimation among the Indians; and Dr. Lind, late of Bengal, at the age of eighty years, states, that by its use he has preserved all his teeth perfectly sound: and several very respectable gentlemen, who have resided many years in the East Indies, have assured us that they have found it to be a great preserver of the teeth, and a certain preventive of the tooth-ache. The charcoal of the areca nut certainly affords a more smooth powder than that of wood, and therefore, for the purpose of cleaning the teeth, is more efficacious. It also possesses an alkalescency, which renders the matter that adheres to the teeth more readily removed by the brush, — a property from which the common charcoal is entirely exempt.

On the very respectable authority of Dr. Lind, I was induced to give the areca charcoal a trial; and, from long experience, I have no hesitation in recommending its adoption in preference to that of wood.

It is become necessary to caution the public against the tooth-powders recommended by many dentists, and particularly those sold by some perfumers, which, being composed of the most destructive minerals, may, for a short time, render the teeth

white, but will ultimately prove very injurious by their mechanical action on the enamel. Indeed, such is the mischief that uniformly follows their use, that the areca charcoal is a great desideratum, and, as soon as its valuable properties are generally known, it will, no doubt, supersede all others.

The tincture of rhatany root, mixed with an equal quantity of rose water, forms a very excellent astringent lotion for the teeth, and should always accompany the use of the prepared charcoal, or any other dentifrice. This tincture, from its peculiar astringent power, braces and strengthens the gums, and its repeated use has often succeeded in fastening loose teeth.

Having examined the tooth-powder industriously advertised by several druggists, under the name of *Prepared Charcoal*, I can assert that I have not found any to be genuine charcoal powder, but a composition of burnt oyster-shells, which in no respect resembles charcoal; and, as a dentifrice, must assuredly prove very hurtful. The spurious charcoal powder may be known by being of a grey colour, whereas true charcoal is perfectly black.

INDIAN ARROW ROOT. — The Indian arrow root has of late years been cultivated in considerable quantities in gardens and provision grounds in the West Indies. The following process for obtaining the fine powder, sold in this country, was communicated by a principal planter, for insertion in the Medical Guide:

"The roots, when a year old, are dug up, well washed in water, and beaten in a large wooden mortar to a pulp. It is then thrown into a large tub of clean water, well washed, and the fibrous part wrung out by the hands and thrown away. The milky liquor, being passed through a lawn sieve, or coarse cloth, is suffered to settle, and the clear water drained off. The white mass left at the bottom is again mixed with clean water, and strained; lastly, the mass is dried on sheets in the sun for use."

This powder, boiled in water, forms a very pleasant transparent jelly, very superior to that of sago or tapioca, and has been much recommended by Dr. Denman, Dr. Clarke, and other eminent practitioners, as a nutritious diet for children and invalids. The jelly is made in the following manner: — To a dessert-spoonful of the powder, add as much cold water as will make it into a paste, then pour on half a pint of boiling water, stir it briskly, and boil it a few minutes, when it will become a clear smooth jelly: a little sugar and sherry wine may be added for debilitated adults; but, for infants, a drop or two of essence of caraway seeds or cinnamon is preferable, wine being very liable to become acid in the stomachs of infants, and to disagree with the bowels. Fresh milk, either alone or diluted with water,

may be substituted for water. For very debilitated frames, and especially for rickety children, this jelly, blended with an animal jelly, as that of the stag's-horn, affords, says Dr. Clarke, a more nutritious diet than arrow root alone, which may be done in the following manner: — Boil half an ounce of the true stag's-horn* shavings in a pint of water for fifteen minutes, then strain, and add two dessert-spoonsful of arrow root powder, previously well mixed, with a tea-cupful of water; stir them briskly together, and boil them for a few minutes. If the child should be much troubled with flatulency, from three to six drops of essence of caraway seeds, or a little grated nutmeg, may be added; but, for adults, Port wine or brandy will answer best. By this diet, continues Dr. Clarke, I am well persuaded many children have been reared, which, had they been kept on the breast, and the customary spoon-meat, would have died. One lady, in particular, who adopted it, has now two children living, in perfect good health, after having lost five, either by convulsions or bowel complaints.

The combination of animal and vegetable jellies is much recommended by Dr. Cadogan, in his popular Treatise on the Management of Children; who justly attributes one-ninth of their diseases to being fed too much with vegetables. Such an admixture is similar to mother's milk, and probably very superior to the milk of an unhealthy woman.

Through the extravagantly high price of six shillings a pound, at which this powder is sold, its consumption has been chiefly confined to opulent families. In order, however, that no class of invalids may be precluded from its use, I have directed it to be retailed at *four shillings* a pound, at the Chemical and Medical Hall, in Piccadilly; No. 44, Foregate, Worcester; and at No. 4, East Street, Brighton: and as it is received in the original packages from one of the most respectable planters in the West Indies, I can take upon myself to say, that it is perfectly genuine, and equal, if not superior in quality, to that sold at double the price.

SASSAFRAS NUT. — The substance of this nut is of the same mealy and unctuous quality as that of the cocoa-nut, from which chocolate is prepared; in addition to which it contains the peculiar virtues of the sassafras root, which has been long held in great estimation for its purifying and alterative properties.

* Great care should be taken that the true stag's or hart's horn shavings be employed; as the shavings of the bleached bones of the calf, on account of being whiter and much cheaper, are generally sold for them. The latter do not impart so strong or wholesome a jelly as the stag's horn, the bones being nearly deprived of their glutinous property by the process they undergo to render them white.

The aromatic quality (which is very grateful to the stomach), most invalids require for breakfast and evening repast, to promote digestion; and to a deficiency of this property, in the customary breakfast and supper, may, in a great measure, be attributed the frequency of cases of indigestion generally termed bilious. It has been found highly beneficial in correcting the state of the digestive organs, &c., from whence arise many diseases, such as eruptions of the skin, gout, rheumatism, and scrofula. In cases of debility of the stomach, and a sluggish state of the liver and intestines, occasioning flatulence, costiveness, &c., and in spasmodic asthma, it is much recommended.

The ground nut is used in the same manner as cocoa or coffee.

THE GALVANIC BRUSH. — In this brush metallic wires (zinc and copper) are distributed through the hair, and terminate in the handle, for the purpose of more effectually conducting superabundant electric matter from the body. In cases of local pains from super-irritation and inflammatory excitement of nerves, as gout, &c., it has lately been found more efficacious than liniments, or any external application. In acute pains of the head, it often affords immediate relief. In those affections, friction with this brush probably proves beneficial by equalizing the distribution of blood and nervous energy.

THE IGNITOR. — This little apparatus is particularly useful to light a candle in the night, in case of sudden attack of disease or any alarm. It has the great advantage of being free from the unpleasant smell of phosphorus or brimstone. To produce a flame, it is only necessary to dip (quickly) one of the matches which accompany it in the bottle, (not brimstone matches,) and on taking it out, the end will be found in a blaze, with which a candle may be lighted. This apparatus, which may be obtained from 10*d.* to 3*s.* 6*d.* and upwards, should be kept by every family. It is free from danger, and when the fluid is exhausted, it may be replenished at the expence of a penny.

NEW CHEMICAL REMEDIES

LATELY INTRODUCED INTO THE PRACTICE OF MEDICINE.

To the late rapid progress of vegetable chemistry on the continent, the medical profession of this country is indebted for a knowledge of the active constituent principles of several articles of the materia medica, in which the peculiar medicinal virtues of

many of them appear to reside. For the last ten years, a discovery of a new acid, possessing some peculiar chemical property, has been almost weekly announced in the philosophical works of Paris, whilst the number of alcalies remained stationary. Within the last three years, the discoveries of new alcalies have been so rapid, that the number exceeds that of acids; and with such nicety have the chemical examinations of vegetable productions been conducted, that two alcalies (which, being educts, may be termed *native* alcalies) have been detected in the same article; and, what is particularly worthy of notice is, the activity or virulence of the alkalies of poisonous vegetables, instead of being diminished by neutralization with an acid, are increased by it. The idea entertained by the ancient and modern physicians, till within the last two years, that vinegar and lemon acid are capable of correcting the poisonous quality of certain vegetables, although they were not aware that it resided in an alcali, is so far proved to be erroneous, that they have the effect of increasing their virulence. Pure potass, pure soda, pure lime, and pure ammonia, although so powerfully caustic as to be capable of destroying the organization of a healthy part of the body, are, when neutralized by an acid, although the acid possesses the same destructive power, rendered so mild that a person may take half an ounce of pure potass, and the same quantity of sulphuric acid, in a state of combination, with impunity; and the same quantity of either, taken into the stomach separately, would destroy life. An acid has not the same effect on the native alcalies of poisonous vegetables; for the results of repeated experiments on dogs and other animals have proved that they are rendered more potent by an acid, although the alcali be thereby neutralized.

Of the new chemical remedies, which Majendie and his coadjutors on the continent have introduced into the practice of medicine, some are unquestionably very valuable additions to our list of remedies. The virtues of all that have been employed in medicine have, no doubt, been too highly extolled, and some of them are such powerful poisons, that even the most philosophical physicians of Paris have not ventured to give them a trial, or probably not dared to allow the results of their experiments to transpire. Of all the new remedies, Iodine, Morphine, Prussic Acid, and Lupulin are the only ones in the favour of which the results of my own experience have enabled me to speak decidedly. To the other new articles, as Emetine, Veratrine, Atropine, &c., I have not given a trial, for a plain reason, that may excite the derision of the *philosophical* practitioners of France and Italy, viz. because I would not take any one of them myself in any case of disease. I do not mean to say that great credit is not due to some French chemists, particularly to

M. Pelletier and M. Caventou, for their late discoveries of the alcalies of numerous natural productions of the vegetable kingdom, in which they suppose their virtues reside, and also to the justly celebrated physiologist, M. Majendie, for the numerous experiments he has made on different animals, for the purpose of ascertaining their medicinal properties; but this I say, that the value of many of these discoveries as remedial agents have been much overrated. When the extracts of poisonous vegetables contain all their medicinal virtues in such a state of concentration, that one or two grains is a sufficient dose, what advantage can arise from a still further concentration by tedious and expensive processes; and especially when the article so concentrated is too powerful to administer without dilution? If the *atropine* (the alcali of the deadly nightshade), the daturine (the alcali of the stramonium seeds), and other alcalies of poisonous vegetables, are to be mixed with a conserve, or dissolved in a fluid, to render them safe articles for conveying into the human stomach, they cannot differ, as remedies, from the extracts, which are, in fact, the alcalies in combination with gummy matter. As to the solutions of these alcalies in alcohol, which Majendie and others term tinctures, they possess no advantage whatever over the common tinctures of the articles from which the alcalies are obtained, for they cannot deny that they are powerfully impregnated with the alcaline bases. The discoveries of alcalies in such powerful poisons as the deadly nightshade, the garden nightshade, and the vomic nut, &c., &c., are only interesting in a chemical point of view. In medicine, we are satisfied, they are far more likely to prove injurious than beneficial, by supplying those theorists and experimentalists with dangerous implements, who think hospital patients proper objects for the boldest experiments. I shall briefly notice the most powerful articles, more to induce practitioners to avoid than to subject their fellow-creatures to hazardous experiments. To Majendie, Orfila, and other cool philosophical experimentalists, the profession is much indebted for the numerous trials they have made with these new alcalies on dogs and other animals; but, had they communicated the *unfavourable* results of their experiments on their fellow-creatures, who had placed their lives in their hands, the medical profession of this country would have been more competent to form a just opinion of their value.

QUININE, CINCHONINE, AND SULPHATE OF QUININE. — The credit of the discovery of these alcalies of the species of Peruvian bark employed in this country is generally given to some Russian and French chemists; but the alcali termed cinchonine was certainly first detected by Dr. Duncan, jun. of Edinburgh, in conducting the analysis of the pale Peru-

vian bark; and it was probably his account of it which led to the discovery of another alcali in it, by Lanbert, Streuss of Moscow, and Gomez of Lisbon. Messrs. Pelletier and Caventou appear to have been the first who ascertained quinine to be an alcali. The quinine, being more potent than cinchonine, is generally preferred. It is of a white colour, insoluble in water, and of an intense bitter. It is soluble in alcohol and acids. Several salts of quinine are used in medicine; as the sulphate, acetate, nitrate, muriate, citrate, &c. (all of which are more powerfully bitter than the quinine); but the preference is now generally given to the sulphate.

The sulphate of quinine is prescribed in the dose of two or three grains three or four times a day, made into one or two pills with a little conserve of hips, or cordial confection. Some practitioners prefer the wine of sulphate of quinine, and others a tincture. The wine is made by dissolving sixteen grains of the sulphate of quinine in a pint of Madeira wine (the dose of which is a wine-glassful two or three times a day); and the tincture, by dissolving thirty grains of the sulphate of quinine in a pint of brandy (the dose of which is a table-spoonful three times a day, in about two table-spoonsful of water). Some French physicians prefer the syrup of sulphate of quinine to the wine or tincture of it, which is made by dissolving thirty grains in a pint of simple syrup. The dose of this syrup is from one to two table-spoonsful, two or three times a day.

The sulphate of quinine is much recommended in cases of remittent and intermittent fever, and tic douloureux; and the tincture and wine are chiefly administered in cases of indigestion of elderly people, dropsy, fluor albus, and to support the system against the debilitating effect of local diseases attended with copious discharges.

The Peruvian bark, in powder, is so unpleasant a medicine to take in a sufficient quantity to produce a proper effect, particularly in intermittent fever, tic douloureux, putrid sore-throat, mortification, and other diseases, and so frequently proves injurious by disordering the stomach and bowels, that a preparation of it, containing all its medicinal virtues in a small compass, to admit of being given in an agreeable form, is certainly a great desideratum in medicine; but when the French chemists assert, that the separation of the peculiar alcali termed quinine, "saves the stomach much labour in effecting the analysis of the bark, so as to produce the alcali to be transmitted to the circulation," they advance a great absurdity; because the alcali procured by the chemist must undergo assimilation in the stomach. A few years since, the peculiar tonic properties and *virtues* of the Peruvian bark were said to reside in its tannin principle, and many cases

of remittent and intermittent fevers, and general and local debility, have been published in evidence of this hypothesis. Other practitioners have contended, that the virtues of the Peruvian barks reside in the astringent principle; and as the yellow bark contains less the pale, it had nearly fallen into disuse in some parts of this country and of the continent; and many instances of cures effected by the astringent principle were published, to establish the supposed fact, that its beneficial effects depended on its astringency. Quinine being more abundant in the yellow bark than the pale, the yellow is now the most fashionable article with many theorizing physicians who possess a smattering knowledge of chemistry. The sober practitioner of experience and observation attributes the tonic effects of the Peruvian barks more to the combined operation of their tannin and astringency than to the quinine or cinchonine; and the pale bark, which has proved more beneficial in the cure of intermittent fevers, &c. than the yellow bark, being almost, if not entirely, free from the alcali termed quinine, confirms this idea.

Of all the preparations of the Peruvian bark which have been introduced into the practice of medicine, that first made by the Count de Garraye, under the name of the "*Essential Salt of Bark,*" is in my opinion the best; on account of containing all the active principles of the bark, in a state of such concentration, that ten grains are equal to a drachm of the powder. It has also the recommendation of being pleasant to the palate, and of admitting of being administered in the form of a pill. The late celebrated physician, Dr. James Carmichael Smyth, spoke in very high terms of commendation of this article, and prescribed it in all cases in which the use of a tonic was indicated. The quinine only contains the bitter principle of the bark; a principle which, in elderly or weakly people, like all other intense bitters, reduces the energy of the stomach.

On the advantages of the essential salt of bark over other preparations of this drug, I have made some observations in the 73d page of this work. The tincture of quassia has been lately sold by some unprincipled druggists, at a very extravagant price, under the name of tincture of sulphate of bark.

MORPHINE. — This article is the peculiar alcali of opium, and is doubtless one of the most valuable of all the new alcalies that have been discovered. The results of the experience of many eminent physicians of France, Germany, Italy, and of this country, clearly prove, that it is a direct sedative, and that its effect is not succeeded by the disturbance of the brain and nervous system and general relaxation, which so frequently follow the use of opium or laudanum. It has been satisfactorily ascertained, that the bad effects of opium and laudanum are produced

by a principle in them, termed narcotin, which, by irritating or disordering the nervous system, in a great measure counteracts the anodyne operation of the morphine. The morphine, being therefore freed from the narcotin, acts immediately as an anodyne; and after its operation has run its course, the nervous system continues in a calm state. Many preparations of opium have been recommended to the attention of the profession, as possessing the peculiar property of morphine, as the black drop, the sedative liquor of opium, &c.; but not one has generally succeeded, and on analysis, all have been found to contain the baneful principle termed narcotin. Several salts of morphine have been recommended by physicians of France and England. The citrate of morphine is extolled as an efficacious anodyne by Dr. Porter, an eminent physician of Bristol, and the sulphate of morphine by others; but the acetate of morphine seems to be the favourite preparation with the most eminent physicians of this country. The solution of this article, and instructions for its use, I have noticed, page 151.

The syrup of acetate of morphine is generally prescribed in France, instead of the syrup of white poppies. It is made by dissolving four grains of the acetate of morphine in a pound of simple syrup. The dose is from one to six tea-spoonsful, according to the age of the patient, and degree of irritation or pain which it is intended to subdue. The dose of morphine is from one-eighth to one-fourth of a grain,—of the acetate, one-fourth to one-half of a grain.

IODINE. — This article, although discovered by M. Courtois in the year 1813, has been very lately introduced into the practice of medicine. It is now obtained from a great variety of sea plants. Dr. Coindet, of Geneva, first prescribed it. Supposing that the medicinal virtues of calcined sponge reside in iodine, he determined to give it a trial in the disease for the cure of which burnt sponge has been chiefly employed, viz. wen; and the results fully answered his expectation. The trials have since been repeated by several eminent physicians of France and England, and from their reports it appears, on an average, to have succeeded in ninety cases out of every hundred. In young subjects, or females under thirty years of age, it has almost uniformly been successful in dispersing the tumour; but in elderly people of rigid fibres, it seldom has any influence on the disease. Iodine, in combination either with oxygene or hydrogene, forms an acid. Its salts are numerous, but those of soda and potass are chiefly used in medicine; and it appears that the medicinal virtues of this peculiar acid are not diminished in consequence of being neutralized.

The tincture of iodine, made by dissolving forty-eight grains of iodine in an ounce of alcohol, is generally prescribed internally. The dose is from 20 to 30 drops, two or three times a day, in a wine-glassful of the decoction of marshmallow root, or of infusion of soapwort. This tincture has also been very successfully administered in scrofulous affections, and for correcting the scrofulous diathesis, for which it was first recommended in the Monthly Gazette of Health. In many cases of scrofulous tumours and ulcerations, it has proved very beneficial. The celebrated Dr. Hufeland of Berlin, Dr. Gairdner of London, Dr. Coindet of Geneva, Dr. Dunglison, Sir Astley Cooper, Mr. Brande, Mr. Callaway, Mr. Delisser, and other eminent practitioners, speak in high terms of commendation of its antiscrofulous property; and we have met with numerous cases in which it has fully succeeded in restoring the patients to perfect health, notwithstanding the lungs appeared to be diseased. In patients whose stomachs are irritable, or whose digestion is bad, it frequently excites nausea, and disorders the nervous system; and many cases of scrofula have been published, in which it failed even to check the progress of the malady; but those failures, in our opinion, only shew the necessity of preparing the system for the remedy, by previously correcting the state of the stomach and bowels. If digestion be imperfect, and the products of indigestion prevail in the stomach, it is unreasonable to expect a chemical article of such delicacy as iodine to produce any salutary or specific effect on the constitution; nor can it appear extraordinary to a physician, acquainted with chemistry, that such an article should excite nausea and disturb the nervous system, when acidity and flatulence keep up an excess of excitement in the nerves or internal coat of the stomach. Many valuable remedies have, no doubt, fallen into disuse, in consequence of practitioners neglecting to prepare the stomach, bowels, and even the nervous and sanguiferous system for their exhibition.

The ointment of the hydriodate of potass is much recommended as an external application for dispersing glandular swellings without ulceration of the skin. It is made by mixing a scruple of the hydriodate of potass (finely powdered) with an ounce of hog's lard. The size of a small nutmeg of this composition should be well rubbed over the tumour every night and morning. Abstraction of blood from the part by leeches, and fomentations of camomile and poppy heads, have been found greatly to promote the discutient effects of this ointment. The iodine, prepared by the German chemist, is very superior to that made in France or in Scotland. — *See* DISCUTIENT PLASTER, page 130, and DISCUTIENTS, page 25.

THE ALCALINE EXTRACT OF JALAP. — This article, first employed by myself, is made by evaporating the saturated tincture of jalap by a gentle heat, with a small portion of potass, to prevent the separation of the resin and gum of the root, which is apt to take place when the spirit is evaporated. The extract of jalap, made according to the directions of the London Pharmacopœia, when given to the same extent as the powder, frequently fails to produce any aperient effect, but may in consequence of the separation of its constituent principles on evaporation; the spirit flying off before the water. The alcaline extract, in the dose of ten grains, operates on the bowels, and has the great advantage over Epsom and Glauber's salts, the saline aperient waters of Cheltenham and Leamington, aloes, senna, and many other purgative medicines, of promoting the fæcal secretions of the lower intestines, as the colon and rectum, without irritating them or disordering the organs of digestion. Hence it is a most valuable opening medicine in cases of debility and of irritative affections of the colon, rectum, or bladder. Dissolved in simple syrup, in the proportion of two scruples to an ounce, it affords an excellent aperient medicine for children. The dose of this syrup is from one to three tea-spoonsful, according to the age of the child.

PIPERINE.—This substance was discovered in black pepper by M. Œrstaedt, who considers it to be an alcali. M. Pelletier, who has carefully examined it, says that it is not an alcali, but a peculiar resin. A Dr. Meli has administered it with great success in cases of remittent and intermittent fever: and after numerous trials at the hospital of Ravenna, he asserts that it is a more certain febrifuge tonic than either cinchonine or quinine, or any of their salts. M. Pelletier says, that piperine bears much analogy with the resin of cubebs, which M. Vauquelin compares with the balsam of copaiba. On account of this analogy, Dr. Dunglison recommended a trial of it in those urethal affections for which cubebs and balsam copaiba are generally prescribed.

PRUSSIC OR HYDROCYANIC ACID. — This acid has been lately highly extolled as a remedy for allaying irritation attendant on diseases of the lungs; and in cases of simple irritation in the membrane of the windpipe and the air vessel, it is often beneficial. It has also been found to allay pain in cases of cancer of the womb. For hooping-cough, particularly after it has nearly run its first stage, and for spasmodic asthma, it is certainly a valuable remedy. Being one of the most powerful poisons that is employed in medicine, it is much to be regretted the College of Physicians of London has neglected to publish directions for making it, so that it should be kept of

the same degree of strength by the chemists and apothecaries of this country. For the want of such directions, the prussic acid of different chemists varies so much in strength, that of some a patient may take forty drops with impunity, whilst four drops of that made or employed by others are capable of destroying life. The dose of the prussic acid, prepared at the Medical Hall, 170, Piccadilly; 44, Foregate Street, Worcester; and 4, East Street, Brighton; is from one to three drops, two or three times a day, in a wine-glass of barley water, almond emulsion, or camphorated julep. The following mixture has been administered in many cases of spasmodic asthma and hooping-cough with great advantage, the first dose often terminating a paroxysm of asthma.

Take of Prussic Acid, from		10 to 20 drops.
Hoffman's Anodyne Liquor,		3 drachms.
Ipecacuan Wine,	-	2 drachms.
Oxymel of Squills,	-	4 drachms.
Camphorated Julep,	-	7 ounces.—Mix.

Three table-spoonsful to be taken three or four times a day.

Majendie, the celebrated physiologist of Paris, has published the following formula for the exhibition of prussic acid, in cases of pulmonary consumption and asthma:

Take of Infusion of Ground Ivy,	-	2 ounces.
Prussic Acid,	- -	15 drops.
Syrup of Marshmallows,	-	1 ounce.—Mix.

A dessert-spoonful to be taken every nine hours. The bottle should be well shaken immediately before the dose is poured out.

The prussic acid exists in the black cherry water, which was employed by the ancients in the cases for which the prussic acid is now recommended. The bitter taste of Noyeau is produced by prussic acid.

STRYCHNINE AND THE RESIN OF THE VOMIC NUT. — The peculiar alcali of the vomic nut (strychnine) and also the resin of the vomic nut, termed the alcoholic extract, have lately been much recommended for paralytic affections by several physicians of France and Germany. Both these articles, it is said, have a very peculiar effect on the irritability of muscles, which they seem to increase so as to produce a kind of tetanic affection; and, what is particularly worthy of notice, these effects are chiefly manifested in the paralysed limb. In cases of palsy of one side of the body, Majendie observes, the "halves of the body exhibited a striking contrast; for whilst the *healthy* side is at rest, the other is violently agitated; tenanic shocks soon succeed, and a copious perspiration breaks out. In a female, the affected side was covered with a peculiar eruption, when the opposite one was free from it, — even the two sides of the tongue differed, a decided bitter taste being perceived on the affected

side, whilst it was absent in the other;" but when a large dose was given, Dr. Majendie observed that both sides were affected. The alcoholic extract of the vomic nut, which is generally preferred to the alcali (strychnine) when given in very small doses, has not, like many other remedies, any immediate perceptible effect, some days often passing over before its peculiar action on the muscles appears. It is given in the form of a pill. Majendie advises practitioners to commence with one or two pills (each containing a grain of the alcoholic extract), and to increase the dose one grain daily, till it produces the desired effect, and then to discontinue it. He says, the best time for administering the remedy is in the evening, because it has a more speedy effect during night. In some cases, he found it necessary to increase the dose to thirty grains, to produce the agitating effects on the muscles. He says he has found this preparation, and also strychnine, very beneficial in cases of muscular debility. For the exhibition of strychnine, he gives the following prescription:

Take of pure Strychnine, - - 2 grains.
Conserve of Roses, a sufficient quantity to form twenty pills.
One to be taken for a dose every morning and evening.

Some physicians prefer the tincture of strychnine, which is made by dissolving three grains in an ounce of alcohol. The dose of this tincture is from six to twenty drops twice a day in a wine-glass of water.

Both the alcoholic extract of the vomic nut and its alcali (strychnine) are such powerful poisons, that, in order to enable practitioners to form a just estimate of the value of these discoveries, Majendie, and those who have given the articles what the French term *fair philosophical* trials, should have candidly given the number of instances in which it failed or terminated life.

EMETINE. — This is the active principle of ipecacuan root, and has the great advantage over the powder, of not only being more active, but of being free from any disagreeable taste or nauseous odour. The dose, to excite full vomiting, is two grains; but on irritable stomachs half a grain often vomits. It is highly recommended by some French physicians as an emetic, and in small doses for all the diseases for which ipecacuan is employed. Mr. Boullay states, that he has procured an article from the roots, leaves, flowers, and seeds of the violet (*viola odorata*) very similar to emetine. M. Orfila, who gave it a trial on dogs, asserts that it is highly poisonous.

VERATRINE. — This alcali is obtained from the seeds of the *veratrum sabadilla*, (Indian caustic barley). It is not soluble in cold water; and boiling water takes up only a very small proportion of it. It is soluble in æther and alcohol. It is said to

have proved beneficial in cases where it is necessary to excite quickly a strong action of the bowels, particularly when the lower portions of the intestinal canal are overloaded with fæces. In such cases we should prefer either of the purgative clysters, page 103. The dose is from one-eighth to one-fourth of a grain. It is supposed to be similar to the alcali of the colchicum root and white hellebore. The solution of veratrine merits a trial, as a topical application for the itch.

BRUCINE. — This article is obtained from the spurious Angustura bark. It has also been detected, combined with strychnine, in the vomic nut. Its effects on the body being similar to those of strychnine, it is recommended to be employed in those cases in which strychnine has proved beneficial. The dose is from one-sixth to one-fourth of a grain three or four times a day.

SOLANINE. — This alcali has been very lately discovered by M. Desfosses, an apothecary at Besançon, in two species of the solanum, viz. the garden nightshade (*solanum nigrum*), and the bitter sweet (*solanum dulcamara*). It exists in the leaves of the latter; but in the leaves of the former it has not been detected. It is most abundant in the berries of the nightshade. A very small quantity (one-eighth of a grain) produces great irritation in the throat. Majendie confesses he has not given it a trial in any disease; but he recommends a trial of it in those cases in which the extract of the garden nightshade, or that of the bitter-sweet, are indicated.

ATROPINE, DATURINE, AND HYOSCYAMINE. — Atropine was first obtained from the deadly nightshade (*atropa belladonna*) by M. Brandes, and in it he considers all the medicinal and deleterious properties of the plant to reside. It is so powerful a poison, that M. Brandes found the smell and taste of it to disorder his head and stomach. M. Brandes says, that he has discovered a very similar alcali in the seeds of the stramonium, and the seeds of henbane; the former of which he has named daturine, and the latter hyoscyamine.

DELPHINE. — This alcali was discovered by Messrs. Feneulle and Lassaigne, in the seeds of the stavesacre. Not having been administered internally, the dose has not been ascertained. Orfila found six grains to be capable of poisoning a dog, and its virulence to be considerably increased by vinegar, which, by the ancient and modern physicians, has been considered a powerful corrector of *all* the vegetable poisons!!

PICROTOXINE. — This substance, first discovered by Boullay, is the bitter and poisonous principle of the cocculus indicus, (the fruit of the *menispermum cocculus*). Majendie has ascertained, by a "*fair philosophical* experiment," that ten grains

soon produced violent convulsions in a dog, which terminated in death. It has not been employed in medicine. The cocculus indicus, a considerable quantity of which is annually imported into this country, is employed for intoxicating fish; and as they are, or have been purchased by brewers, it is probable they enter the composition of brewers' ale when malt is dear.

GENTIANINE. — This is the alcali of gentian root. It is powerfully bitter, and somewhat aromatic. Majendie has ascertained that it is not poisonous. It is recommended, in the dose of one grain two or three times a day, as a powerful stomachic. Majendie says, the tincture, prepared after the following form, ought to be used in preference to the alcali in substance:

Take of Alcohol - - 1 ounce.
Gentianine, - - 5 grains. — Mix.
A small tea-spoonful to be taken two or three times a day in a wine-glass of water.

AUXILIARY REMEDIES.

THE remedies which are very generally employed as auxiliaries to the medicinal agents noticed in the preceding pages, are, in the treatment of many diseases, both acute and chronic, often of greater importance than the most active drugs. I shall briefly notice those the efficacy of which I have often witnessed in the course of my practice, and which I know to be entitled to the attention of the faculty and of my non-medical readers especially, *viz.*

Electricity,
Galvanism,
Shampooing,
Chlorine Vapour Bath,
Simple and medicated Vapour Baths,
Mercurial Vapour Bath,
Air pump Vapour Bath,
The Hot and Cold Douch Baths,
Warm and Cold Salt Water Baths,
Cold Bath,
Oxygen.

OF ELECTRICITY. — The electric fluid has been long employed, both as a principal remedy and as an auxiliary to internal medicines, in various diseases, both general and local; and it must be admitted that it has succeeded in the cure of many nervous affections and of local debility, after the most active medicines had failed. This subtle fluid has very opposite effects according to the manner in which it is applied. When a collec-

tion of it is suddenly discharged through a part of the body, it produces what is termed a shock, and by this means a deep-seated indolent viscus, on which internal remedies, and even the warm medicated baths, will have little, if any, effect, may be stimulated, and after the general health has been improved, it has often succeeded in increasing its energy, or bringing it properly into action. When the fluid is applied in sparks, it stimulates the nerves, blood-vessels, and absorbents of the part to which it is applied; and after the general health has been improved by regulating the stomach and bowels, this mode of application has succeeded in cases of deafness, loss of sight from nervous debility, and partial palsy. The sparks have also proved very beneficial in cases of chronic rheumatism, debility of the lower or upper extremities from rheumatism, gout, or accidents; of stiffness of joints, St. Vitus's dance, partial palsy, debility of the sphincter muscles of the rectum and bladder, of accumulations of serum from inactivity of absorbents or a languid circulation, and of indolent tumours. The sparks increase the temperature of the parts to which they are applied, and aggravate inflammation. When the electric fluid is applied in one regular stream, termed the *aura*, instead of increasing, it reduces the temperature of the parts to which it is applied *, and allays nervous excitement; and hence it has been very successfully applied to local inflammation, particularly of the eyes, and to the forehead and temples in cases of nervous head-ache. It has also proved very beneficial in tic douloureux and a variety of local diseases arising from increased nervous or vascular action.

OF GALVANISM. — Galvanism has lately been employed with great advantage in cases of inactivity of the liver and debility of the alimentary canal, particularly when occasioned by the influence of a tropical climate, or by an indulgence in spirituous or vinous liquors, or savoury dishes. This agent, in such cases, is an important auxiliary to tonic, aperient, and deobstruent medicines, in consequence of the fluid being passed through the viscera, which are chiefly affected, and on the sluggish state of which the disordered state of the system is often dependent. Mr. la Beaume of London, who has paid particular attention to this philosophical remedy, has published a popular treatise on it, in which he has given many cases of indigestion, indolent affections of the liver and intestines, and

* This effect is no doubt produced by the action of the electric fluid on the matter of perspiration, by diminishing the cohesion of its particles, and thereby hastening evaporation. It is a curious fact, that the electric fluid, applied in this manner to the surface of warm water, greatly expedites evaporation, and for this purpose it may be employed in making extracts of vegetables, the virtues of which are diminished by long boiling.

paralytic affections in which it proved successful, after blue pill and the usual remedies, under the direction of the most eminent practitioners, had failed.

OF SHAMPOOING.—The operation of Shampooing, when the surface of the body is exposed to the action of a warm vapour, is a powerful remedy for rheumatism, muscular debility or rigidity, stiffness of joints and palsy, particularly after the general system has been improved by correcting the alimentary canal, and removing visceral obstruction. Mr. Mahomed, of Brighton, who was certainly the first person who gave this practice publicity in this country, has lately published a treatise on it, with numerous cases of stiff joints, palsy, &c. &c., to illustrate its very beneficial effects in a great variety of local diseases.

OF THE CHLORINE BATHS. — The Chlorine Water Bath and the Chlorine Vapour Bath have been much recommended by Dr. Scott, an eminent physician of Bombay; by Mr. Green, an experienced surgeon of London, and other respectable practitioners, in cases of obstructions of the liver, affections of the stomach, and constipation from debility. If the beneficial effects of these remedies be produced by an absorption of chlorine, it must be admitted that it is more likely to do mischief to the brain, lungs, or any tender part of the body, than good to a diseased viscus. If, again, the disease of the viscus be in a state of excitement, or advances to suppuration or ulceration, chlorine introduced into the system may be productive of serious mischief. The effects of these remedies on the head, lungs, and intestines, should at any rate be carefully watched.

VAPOUR BATHS. — The *medicated and simple vapour-baths* are unquestionably powerful auxiliaries to medicine in cases of fever attended with a dry skin; of inflammation of the lungs, the stomach, liver, spleen, intestines, bladder, or any other internal part of the chest or abdomen; in chronic and acute rheumatism; in irregular gout and a variety of diseases of the skin, in which it is desirable to produce a determination of blood and nervous energy to the surface of the body. Employed on the first symptom of catarrh, irritation in the chest or bowels, by promoting the secretion of the skin, and equalizing the circulation throughout the body, a simple vapour bath is capable of preventing most serious diseases.

THE SULPHUREOUS VAPOUR BATH has been very successfully employed in cases of itch; and when the disease has spread over the surface of the body, it is a more proper remedy than the sulphur or any other ointment. In consequence of the sulphur being applied to the whole surface of

the body, except the head, in the form of *warm* vapour, two applications generally prove more efficacious in the cure of extensive itch than ten of the sulphur ointment or lotion. It is also much recommended by Dr. Galés of Paris, Mr. Green, and other respectable practitioners, for scaly affections of the skin, and chronic rheumatism. In cases of inflammatory rheumatism, we have known it to prove injurious.

MERCURIAL VAPOUR BATH. — When it is desirable speedily to place the system under the influence of mercury, or when the stomach and bowels are too excitable to admit of its internal exhibition, and the skin too irritable to allow of inunction, the mercurial vapour bath may be employed with great advantage. Mercury, applied in the form of vapour (warm) has proved beneficial in cases of phagedænic, foul and syphilitic ulcerations, after mercurial lotions, ointments, and other mercurial compositions had failed.

THE AIR-PUMP VAPOUR BATH was much recommended by the late Dr. Garnett, and has been lately extolled as a remedy for palsy and local debility, by the celebrated Professor Hufeland, of Berlin. It unites the effects of fomentation with the cupping glass. Mr. la Beaume states, that he has found it beneficial in cases of local palsy, rheumatism, chronic diseases of joints, &c.

THE DOUCH BATH. — The Douch Bath, both hot and cold, has lately been much employed in cases of muscular debility, local palsy, and chronic rheumatism, with great success. It unites the pommelling treatment of those complaints (lately much recommended by Dr. Balfour of Edinburgh) with warm or cold bathing. With warm water it has proved most beneficial.

THE PORTABLE VAPOUR BATH, is a very convenient machine for applying warm vapour or warm air either to the whole surface of the body, or to a part of it. When sudorific medicines do not succeed in exciting a sufficient degree of perspiration, this is unquestionably an important invention, particularly in cases of inflammation of the lungs, the pleura, or any part within the chest or abdomen, inflammation of the brain, spasms of the bowels, or any local disease in which it may be deemed necessary to promote the circulation in the skin and extremities. Dr. Armstrong and Mr. La Beaume state, that by this invention, they have saved the lives of many children affected with inflammation of the lungs and bowels, to whom they were not able to administer a sufficient quantity of medicine to produce perspiration. The apparatus admits of being put into a small compass for the purpose of being conveyed to the chamber of an invalid.

SULPHUREOUS BATH. — *The warm sulphureous bath* is employed for the same diseases as the sulphureous vapour bath. It is a more unpleasant remedy than the latter, on account of the face being exposed to the vapour of the water, which is slightly impregnated with sulphur.

COMMON WATER BATH. — The uses of the cold bath are so generally known, that it is unnecessary to notice them.

The Warm and Cold Shower Baths have some peculiarly important advantages. The cold water being first applied to the head, does not, like the cold plunging or cold bath, occasion an afflux of blood to the brain; and it probably proves more beneficial, in consequence of being applied to the head when the body is erect. The body being exposed only a minute or two to the effects of the cold water, the re-action of the system is more certain; an object of no small importance in cases of great debility.

In cases of general weakness, and especially when the subject is predisposed to apoplexy, or occasionally suffers from congestion of the vessels of the head or of the chest, (producing giddiness, difficulty of breathing, &c.) the cold shower bath is preferable to the cold plunging bath. The warm shower bath does not possess any advantage over the warm bath, only in cases that will not admit of an horizontal position, or when the warm bath disorders the head.

PORTABLE SUDATORY. — The portable sudatory was invented by the late Dr. Gower, as a simple mode of speedily and effectually exciting perspiration, by means of warm air. It has been very successfully employed by Mr. La Beaume, in cases of inflammation of the lungs and of the intestines of children. The observations we have made on the advantages and effects of the portable vapour bath, apply to this invention.

OXYGEN — has, of late years, been found very beneficial in cases of asthma and winter cough, and even in chronic diseases of the liver, and irregular action of the heart, and in such cases it is unquestionably a most important auxiliary to medicine. — *See* ASTHMA.

At the end of the Appendix to this department of my Medical Guide I shall give a representation of the apparatus which have been found useful, particularly in the treatment of cases of emergency, as Read's Stomach Syringe, Read's Lavement Apparatus, Mr. Thompson's Family Vapour Bath, Mr. Green's Vapour Baths, &c.

APPENDIX

TO THE

MODERN DOMESTIC DISPENSATORY.

THE MEANS OF COUNTERACTING THE EFFECTS OF POISONS TAKEN INTO THE STOMACH.

The three kingdoms of nature affording poisonous articles, poisons are divided into the three classes, viz. Mineral, Vegetable, and Animal.

MINERAL POISONS. — Of this class arsenic is the most powerful. The solutions of mercury, copper, lead, antimony, &c., in different acids, are likewise active poisons. To counteract the effects of any of the mineral poisons taken into the stomach, the liver of sulphur is an efficacious medicine. It may be administered in the following manner: — Dissolve a large table-spoonful of the liver of sulphur in a pint of warm water, and give the patient four table-spoonsful of it as soon as possible, and repeat it every ten or fifteen minutes for three or four doses, or as occasion may require. If this preparation cannot be readily procured, a tea-spoonful of sulphur, with forty grains of salt of wormwood, will afford the best substitute.

Either the liver of sulphur, or salt of wormwood, by uniting with the acid of corrosive sublimate of mercury and the metallic salts, decomposes them, and precipitates the metal in the form of a calx, nearly or wholly inactive. It will likewise be proper to dilute plentifully with warm water, and to excite vomiting, by giving, with the first dose of either of the above medicines, or as soon after as possible, two scruples of ipecacuan powder, and to hasten its operation by irritating the fauces with the finger or a feather. Oil and milk may likewise be given with a view to blunt its acrimony. If neither liver of sulphur nor salt of wormwood can be readily procured, forty grains of pearl or pot-ash may be employed, or a table-spoonful of soap lees given in a little water, or a strong solution of soap in water. *

* When the patient refuses to give any information respecting the nature of the poison he has taken, it will be advisable to treat it as belonging to the mineral class, in order to avoid a loss of time, which, with the emetic dose of ipecacuan, will also succeed in expelling it, should it be of the vegetable kind.

The 89th and 90th numbers of the Gazette of Health contain two interesting cases of attempts to destroy life by taking arsenic, in which the medical attendants attribute the escape of the patients to *dry* vomiting. It appears, by the statement of Mr. Buchanan, that his patients refusing to take any liquid, continued to vomit up the powdered arsenic undissolved with the slime of the stomach. Had liquids been administered to facilitate vomiting, he concludes that, by dissolving the arsenic, it would have proved fatal, the patient having taken upwards of half an ounce of the poison.

An eminent physician in Germany has lately published the results of many experiments he made with powdered charcoal, by which it appears that, by "administering a table-spoonful of the powder (mixed with water) soon after a quantity of arsenic, no disorder of the stomach ensued;" and so satisfied was he that charcoal possesses the power of rendering arsenic inert, that he has made many bold experiments on himself with impunity. The dose of charcoal should be repeated every ten or fifteen minutes, as long as any pain exists in the stomach. It acts by de-oxydising the poison.

It is strange that the decomposing remedies should not have been noticed by Tissot, Buchan, and others, who have written on the subject, professedly for public instruction. Dr. Buchan merely recommends oily drinks to be taken, and observes, if they fail to produce vomiting, "half a drachm of powder of ipecacuan must be given, or a few spoonsful of the oxymel or vinegar of squills may be mixed with the water he drinks." The two latter articles no medical man, at least of any chemical knowledge, would think of employing, being more likely to increase than diminish the virulence of the poison.

When corrosive sublimate of mercury is taken in too great a quantity, Dr. Orfila, of Paris, advises the white of eggs to be largely administered. On the first appearance of the symptoms, he observes the patient should swallow several glasses of the white of eggs mixed with water. If the poison be arsenic, the first object, he contends, is to promote vomiting: for this purpose, a large quantity of the decoction of linseed or milk should be taken, and vomiting excited by irritating the top of the gullet by a feather or finger. An ingenious article on this important subject, from Dr. Orfila, is published in the seventh number of the Monthly Gazette of Health.

If some hours have elapsed since the poison was swallowed, or if the patient has vomited frequently, eight or twelve ounces of blood should be taken from a vein, with the view of diminishing the inflammatory excitement of the stomach, or to prevent inflammation. It often happens, that before medical assistance can be

procured, the patient has cleared the stomach of the poison by frequent vomiting. In such case, the object of practice is to remove its effect (inflammation) by copious bleeding and a demulcent drink, as fresh milk with a few drops of laudanum. It will likewise be prudent to administer the charcoal powder to de-oxydise mineral poison, in case any should remain in the stomach. By exhibiting the alkaline remedies, when no poison remains in the stomach, much mischief is frequently done by aggravating its inflammatory effects.

The most effectual means of saving life after a poisonous dose, either of a mineral, vegetable, or an animal poison taken into the stomach, is by the use of the Stomach Syringe, invented by Mr. Read. By it the stomach may be completely emptied, and washed out with the greatest facility. A representation of this invention, with directions for its use, I shall give at the end of this Appendix.

With respect to mineral poisons, there is some ground for hope, as by proper management they may be decomposed, their effects counteracted, and the danger resulting from their exhibition guarded against and prevented; but, by the use of the stomach pump, if the stomach has not sustained irreparable mischief, life may be preserved.

VEGETABLE POISONS — do not, like the mineral salts, admit of being decomposed so as to be rendered inert; they should, therefore, be removed as soon as possible by means of the stomach pump, noticed at the end of this Appendix. If it should not be at hand, their speedy evacuation should be attempted by the most powerful emetics, as ten or fifteen grains of white vitriol, or four grains of emetic tartar, No. 35. with forty of ipecacuan powder, No. 23. in a little water.

The sooner the emetic is administered, the greater is the probability of success; for such is the narcotic property of vegetable poisons, that, in a short time, they will so far destroy the sensibility of the stomach, as to render it unsusceptible of its action; their evacuation cannot then be effected, and their continuance will be inevitably fatal. The operation of an emetic should be expedited by introducing the finger or a feather into the fauces and upper part of the gullet, or, what is still better, the end of a probang into the stomach, and, by moving it up and down, so as to bring the stomach into action. If an emetic cannot be readily procured, this practice should be immediately employed, till an emetic or the stomach pump can be obtained. The patient should likewise be made to drink plentifully of warm water, or a strong infusion of coffee, the latter of which, some experienced practitioners assert to be the most efficacious remedy that can be

employed for the restoration of the sensibility of the stomach, and the removal of the spasms induced by vegetable poisons.

If the poison be an overdose of opium, the patient should be prevented from going to sleep, by shaking him or keeping him in motion, and applying some pungent smelling salts to the nostrils, while the above means are employed for its evacuation from the stomach. The propriety of bleeding, recommended by Dr. Buchan in such cases, is much to be doubted; no advantage can be derived from such a practice, but, as tending to diminish the powers of life, it would probably accelerate its fatal effects. If the vessels of the head be clearly overloaded, which is often the case, abstraction of blood from a jugular vein will prove very beneficial.

Since the oxalic acid (sold under the name of acid of sugar) has been generally employed as a substitute for the muriatic acid to clean boot-tops, many people have been poisoned by taking it for Epsom salts, which it greatly resembles. The best means of counteracting its poisonous effects on the stomach, is to take freely of chalk powder diffused in water, a solution of salt of wormwood, (made by dissolving four drachms in a pint of water,) and to excite vomiting by irritating the upper part of the gullet with a feather or finger. In case the salt of wormwood cannot be obtained, magnesia or soap lees may be employed.

Some time since the vegetable acids, as vinegar, lemon-juice, &c., were highly extolled as correctors of vegetable poisons; but so far from diminishing or destroying their virulence, it has been found by repeated experiments, conducted by the celebrated Orfila of Paris, that they render them more active.

OF ANIMAL POISONS.—The effects of poison introduced by the sting of insects may be prevented by rubbing the part with spirit of hartshorn, or, if it be not at hand, by applying immediately over the part a little vinegar and spirit of wine, by means of some folds of old linen.

From the bite of a mad animal arises the most dreadful disease known in this country, termed hydrophobia*; for the prevention and cure of which a great variety of nostrums have been held forth to the public; but there is no satisfactory instance of any of them having proved useful; and no means yet suggested can be depended upon, but the complete removal of the injured

* Dr. Berguillon, a French physician of repute, has lately published a treatise, in which he maintains, with great ingenuity, that this disease is produced, *solely* by the power of imagination, without the intervention of any distinct material poison. This opinion has since been broached by several practitioners in England; but if the disease be communicated from one dog to another, or from a dog to a pig, a horse, or any other animal, of which there cannot be a doubt, surely it cannot be said to be imaginary.—"Est natura hominum novitatis avida."

part by the knife or actual cautery. In this, all medical writers on the subject agree, with this difference, that some contend it can only be effectual when it is done in a few hours; while others are of opinion, that the poisonous matter is *not immediately* absorbed into the system, and that the measures for destroying the part may be practised with success many days after the bite.

Sea-bathing has been employed from time immemorial as a preventive; and lately mercury, by many eminent practitioners; but there are no well attested cases in which they have been attended with advantage, so that little or no dependance can be placed on them. The complete cutting out of the part to which the teeth have been applied is unquestionably the most to be relied on; and as hydrophobia, when once it has taken place, is uniformly fatal, and the period for absorption uncertain, the sooner the excision of the part is accomplished, the greater will be the chance of success. Till the operation can be effected, the part should be constantly washed; and even after its removal, a discharge should be kept up from the surface of the wound, by stimulating applications of basilicon ointment with red precipitate of mercury, or spirit of turpentine.

The preventive medicine, so much extolled by Dr. Mead, is composed of ash-coloured liverwort, powdered, half an ounce; black pepper, powdered, quarter of an ounce; to be mixed well together, and divided into four doses, one to be taken every morning fasting, for four mornings successively, in half an English pint of cow's milk (warm).

"After these four doses are taken (the doctor observes), the patient must go into the cold bath, or a cold spring or river, every morning fasting, for a month; he must be dipped all over, but not stay in (with his head above water) longer than half a minute, if the water be very cold; after this he must go in for three times a week, for a fortnight longer. The person must be bled before he uses the medicine."

In the space of thirty years, the doctor asserts, that he had an opportunity of giving this plan a trial no less than *one thousand times*, with (as he observes) *uniform success!* No experienced practitioner, however, I am persuaded, will attribute to it any antidotal power whatever, or think of employing it to the exclusion of more plausible remedies. If mercury be applied, it must be used both internally and externally, so as to excite salivation as soon as possible. Two drachms of the strongest mercurial ointment, at least, should be rubbed into the inside of the thighs, and the part surrounding the wound, two or three times a day, and a pill, composed of three grains of calomel, with a grain of opium, taken twice a day. If symptoms of hydrophobia should

occur, a vein should be opened in the arm, and the blood suffered to flow till the patient faints. This practice has, in some instances, succeeded, and is by far the most rational. If the patient has the power of swallowing, two grains of the sugar of lead, in a little water, may be given every two hours, or made into a pill with conserve of roses. — (*See* HYDROPHOBIA.)

By a communication from Dr. Spalding, an eminent physician of New York, (in the 49th number of the Gazette of Health,) it appears that the scull-cap plant has been administered in many parts of America with the most complete success, both as a preventive and cure. The testimonies there related in favour of this remedy are so numerous and respectable, as to induce one to suppose that a specific has at length been discovered for this most distressing malady.

OF SUSPENDED ANIMATION. — The suspension of the vital powers, produced by immersion in water, called drowning, and that by strangulation and suffocation by noxious vapours * and lightning, are very similar, and require the same resuscitative means. As in poisons, so in cases of suspended animation, what is necessary to be done should be done *quickly*; therefore, on the *first alarm* of any person being drowned or suffocated, while the body is searching for, or conveying to the nearest house, the following articles should be got ready: — viz. *warm blankets, flannels, a large furnace of warm water, heated bricks, a pair of bellows, warming-pan, sal-volatile, clyster-pipes, and an electrifying machine.* In conveying the body to the house, the head and chest should be placed rather in a reclining position, that in case any water should have got into the lungs,

* The unhappy incidents that occur on the opening of subterraneous places — such as tombs, cellars, vaults, &c. — are produced by the quantity of fixed air contained in them, which being unfit for respiration, occasions immediate suffocation. The air is considerably heavier than common air; hence it occupies the lowest situations, such as wells, caverns, &c. From the famous lake of Averno, where Virgil placed the entrance of hell, this air is exhaled in so large a quantity, that birds cannot fly over it with impunity. Before a person enters a vault or cell that has been for some time shut up, or descends a well, the experiment should be made whether a candle will burn in the atmosphere of the place; for ignition and respiration are so very similar, that the same air that will support the one will also the other. The best method of rendering the air of such places fit for respiration, is to explode in it some gunpowder, in proportion to the size of the place; for this purpose, the fire-works named bomb and cracker will answer best, as they may be thrown to the bottom of the well, or end of the vault, &c. To purify the air of the vaults at Dijon, M. Morveau threw in bottles of oxymuriatic acid with such force that the bottles might be broken and the acid spilt in the place; but this experiment was made to correct putrid effluvia, and not fixed air. Whether the air be fit for respiration, may be ascertained by introducing a lighted candle. If the blaze continues, the air will not produce suffocation; but if combustion ceases, it is not fit for respiration.

it may run out at the mouth, which the slight agitation occasioned by carrying the body will accelerate. The head, however, should not be kept much lower than the shoulders, or even in a reclining position, many minutes, otherwise the blood will gravitate in such quantity into the vessels of the head, as very considerably to impede the restoration of life, by compressing the brain.

Since the last edition of this work was published, I have found the stomach-pump to succeed, in cases of suspended animation from suffocation, better than any other means. By conveying warm water into the stomach, the matter of heat is rapidly diffused to the surrounding parts, as the diaphragm, heart, and lungs; and by washing out, as it were, the stomach with warm water, the diaphragm is moved up and down, and the viscera of the chest consequently exercised; and these operations, with the stimulus of heat, will act more immediately and effectually than all the plans that have been devised. During this time an assistant may rub the bowels and extremities, and head, with warm flannel, and another may stimulate the head with electric sparks. If a stomach-pump be not at hand, the following treatment should be adopted: —

The body being placed on warm blankets in a *spacious* room with a good fire, and only five or six attendants, the *first* attempt * should be to increase its *heat* and excite the action of the heart, &c., by friction with warm flannels, and by placing bladders, filled with warm water, to the pit of the stomach, and soles of the feet. Ether and other spirits, recommended by the Humane Society for external applications, are *very hurtful*; the degree of cold produced by their evaporation† counteracting the effects of friction.

The restoration of the important functions of the lungs‡ should be attempted by forcing air from a bellows, through one

* If the suspension be occasioned by noxious vapours taken into the lungs, the first object must be their expulsion, by compressing the ribs and bowels so as to force up the diaphragm; the air will be thus in a great measure expelled, and on removing the pressure, the atmospheric air will rush into the lungs, when the heart generally begins to flutter, and life gradually to return.

† It is a well-known fact, that an animal may be frozen to death by applying ether to the surface of the body, its rapid evaporation carrying off the vital heat.

‡ Dr. Cullen, in a letter to Lord Cathcart on the subject of suspended animation, says, that very often the water does not enter the lungs in any material quantity, and that death ensues in consequence of the stoppage of respiration, and the consequent ceasing of the action of the heart, whereby the body loses its heat and vital principle. Mr. Hunter, in the Philosophical Transactions, Vol. XLVI., advances the same theory, and asserts, that the restoration of breathing is all that is necessary to restore the heart's motion.

nostril *: the other and the mouth being kept *closely* shut, an assistant should gently press down the ribs, so soon as their elevation indicates a distension of the lungs, and this alternate inflation and compression should be continued some time, so as to imitate natural respiration: the friction of the body, &c. being still continued by the other assistants.

The brain and the heart should be stimulated by passing through them the galvanic fluid. For this purpose, Dr. De Sanctis, an eminent physician of London, has lately invented a cheap galvanic apparatus, which is accompanied by instructions to enable any person to use it. The primary moving powers of the body, or the seat of vitality itself, being in the brain, this remedy is of such importance, that the apparatus should be kept in every parish.

The bowels should be fomented and stimulated, by throwing up a quantity of warm water, with a handful of common salt dissolved in it, which may be done with a clyster pipe and bladder. The injection of tobacco fumes, clyster-wise, recommended by the Humane Society, from the *narcotic* quality of the herb, is more likely to prove hurtful than otherwise. It is strange, a herb, noted for its extraordinary effects in *diminishing* the vital functions, should be proposed as a *stimulant* in cases of their suspension. †

A slight agitation of the body, every six or ten minutes, will act as a great auxiliary to those means.

Bleeding having a tendency to weaken the force of the circulation more than promote it, should be employed only when deemed necessary by a medical practitioner. When, however, there is an evident congestion of blood in the vessels of the head, which is generally produced by strangulation, the opening of the jugular vein will prove very beneficial, and should not be delayed.

On the appearance of any symptom of returning life, a teaspoonful of sal volatile, or a table-spoonful of warm brandy, should be got into the stomach, either at once, or by small quantities frequently repeated.

* During this process, it will be proper to draw the tongue forward, in order to elevate the epiglottis, which, by opening the larynx, will facilitate the admission of air into the lungs. If this be neglected, the air will be more likely to pass down the gullet into the stomach, the distension of which, by forcing up the diaphragm, will, in some degree, elevate the chest, and thus deceive the attendant by giving the appearance of the air having entered the lungs. Great care, however, should be taken, that the air does not escape through the mouth, instead of passing into the lungs, on account of the drawing forward of the tongue.

† The fumes of tobacco thus administered in cases of spasmodic affections of the bowels and strangulated rupture, I have known, in many instances, to destroy life in a few hours.

The matter of heat being the stimulus most likely to bring the vital powers into action, warm water heated to about 100 degrees (Fahr.) may also be injected into the stomach and rectum.

If, after a *vigorous* employment of these means for the course of *two hours*, there should be no symptom of returning life, and any brewhouse or warm-bath can be obtained, the body should be carefully conveyed to such a place, and remain in the bath, or surrounded with warm grains or ashes *, for three or four hours; but if not, the plan proposed should be *persisted* in for an hour or two longer, there being instances of lives having been restored after *three hours'* unremitting perseverance.

If the subject be very young, it may be placed between two healthy persons in a bed; the natural vital warmth having in this manner proved, in many cases, successful.

The stomach pump, invented by Mr. Read, the apparatus for inflating the lungs and galvanizing the body, invented by Dr. De Sanctis, and the drag, recommended by the Humane Society, should be more generally kept at public or farm houses, near to rivers and canals, many lives being undoubtedly lost for want of the latter.

The means recommended for the recovery of drowned people are equally applicable to a number of cases where the vital functions appear to be *only suspended*, such as convulsive and fainting fits, suffocation from noxious vapours, and spasmodic affections of the lungs, strangling, intense cold, blows, or falls, &c. &c. Through their being neglected, from the supposition that the person is really dead, there is little doubt but that the principles of life have been revived by the heat and pure air of the earth after interment.

TREATMENT OF A FIT OF INTOXICATION.—Different acids have been recommended for the purpose of correcting the intoxicating power of spirituous and vinous liquors, but the salutary effects that follow their use are probably produced by the diluting liquor administered with them. The recovery of a person in a fit of intoxication must chiefly depend on evacuating the stomach, which is best done by means of the stomach pump, invented by Mr. Read, (*see* drawing at the end of this Appendix,) or if it be not at hand, by forcing down a quantity of lukewarm water, and provoking vomiting by

* Tissot mentions an instance of a young girl who was restored to life, after she was taken out of the water to all appearance dead, by laying her naked body in hot ashes: after remaining in that situation for half an hour, the pulse returned, and she soon recovered the power of speech. This author also relates the case of a man who was restored to life after he had remained *six hours* under water, by the heat of a dunghill!

irritating the fauces with the finger or a feather, or by the probang, as recommended in cases of a poison being taken into the stomach. If the person have so far lost the powers of sense and motion as to be unable to help himself, he ought to be placed in an arm chair that will secure him from falling, and the neckcloth and collar of the shirt immediately loosened. The doors and windows of the room should be thrown open to admit of a free ventilation, and all visitors, except assistants, excluded; and whatever may add to the heat of the body should be carefully avoided.

An horizontal position, as lying on the floor or bed, favouring the influx of blood into the vessels of the brain, should be avoided if possible. In case the person cannot be kept in a chair, the head and chest should be elevated by pillows, and the body inclined a little to one side, for the purpose of rendering vomiting more easy. If the face be *much* swelled, and *unusually* flushed or bloated, the breathing *laborious*, the eyes *fixed*, and the blood-vessels *distended*, the danger of apoplexy may be apprehended; to avert which, it will be necessary to extract blood from the *temporal artery*, to put the feet in *warm water*, to administer an *acrid* clyster of common salt and gruel, and to use every means to *provoke vomiting*.* Throughout the whole paroxysm the application of vinegar, spirit of wine, or ether, to the temples and front and back part of the head, is very serviceable; the cold produced by the evaporation checks the determination of blood to the head, and moderates the heat and velocity of the circulation in the brain. The common application of pungent smelling-salts, or spirit of hartshorn, to the nostrils, by stimulating the brain, is, in this case, improper.

Since the last edition of this work was published, the sub-carbonate of ammonia in the dose of fifteen grains dissolved in water, and the spirit of hartshorn in the dose of two tea-spoonsful in a glass of water, have been recommended by some foreign physicians, to counteract the intoxicating effect of spirituous liquors.

People often lose their lives in a fit of intoxication by falling down in an unfavourable posture, in consequence of an inability to conduct themselves; the head being bent under the body, the

* Vomiting, under an impending apoplexy, has been considered a dangerous practice by some *inexperienced* physicians: I have long made the observation, that *spontaneous* vomiting is a *certain* relief when there is every sign of instant apoplexy; it is therefore fair to imitate nature, which ample experience fully justifies. Indeed, those practitioners who have cavilled most at this practice have produced no fact to contravert it, their dislike resting *solely* on *theoretic* opinions. If it were dangerous to evacuate the loaded stomach of the inebriate, vomiting, at any time, must be considered an operation not only inexpedient, but to a certainty hurtful.

return of blood is in a great measure prevented, and the contents of the stomach being forced into the mouth, are frequently drawn into the windpipe during inspiration, so as to occasion suffocation, and this often takes place when the drunken person is put in an horizontal position, or to lie on his back. It is to be suspected that most of the travellers who perish among snow are of this description: fool-hardy, under the false courage of dram-drinking, they sally out in the dark to explore their way, and quickly lose the road from the change of objects which falling snow occasions. The effect of the dram, in this situation of distress, accelerates death, by assisting to bring on drowsiness or sleep, which exposes the body to the action of cold, and the unfortunate traveller soon sleeps "ne'er to wake again."

The resuscitative means already recommended for the recovery of drowned people, should have a fair trial before a body so found be pronounced dead, as it is impossible to say, under such circumstances, what time has elapsed since he *last breathed*; for, although the limbs be cold and stiff, the heart may still remain so warm and excitable, that on restoring heat to the body by friction, and inflating the lungs, the vital functions may again be put into motion. The body should not, however, be *suddenly* exposed to the heat of the fire, nor put into warm water, till there are no hopes of recovery by the other means.

WOUNDED ARTERY. — In all cases of divided arteries of the extremities, the first object is to prevent the loss of blood, by compressing the trunk of the vessels *above* the wound, till surgical aid can be obtained. For this purpose an instrument is generally employed called a *tourniquet*, which, when skilfully applied, never fails immediately to suppress the bleeding.

In using this instrument, great care must be taken that the pad be applied over the artery, and the instrument itself as nearly opposite to it as possible. The bandage is then to be conducted round the limb, passed through the opening of the instrument *behind* the roller, drawn over it very tight, and secured by fixing it on the three steel points: in most instances, this will be found sufficient; but, if it should not, a few turns of the screw will effectually complete the intention.

The pad, or compress, is not, in all cases, necessary; and even when the discharge of blood is considerable, if there be any doubt about the exact place to which it should be applied, it may be omitted entirely. The circular bandage, when made tight, will effectually compress both the trunk and the collateral branches of the artery; and therefore many surgeons consider the pad useless. When it happens not to be applied over the artery, but on one side of it, the pad may prevent the compression of the artery by the circular bandage, in consequence of

which the blood will continue to flow. Such a circumstance I have known to happen during the amputation of a limb at one of the London hospitals.

If the wound be on the head, or trunk of the body, the most effectual and easiest method of applying pressure is by means of dossils of lint, or soft linen, held *firmly* upon the divided ends of the vessels, or over the wound, by the fingers.

The tourniquet is only employed in case of the division of any of the vessels of the extremities which convey the blood *from* the heart, termed *arteries*. In consequence of the power with which the blood is propelled through this system of vessels, it happens, that when they are wounded, the blood flows *rapidly* and *in jerks* from the wounded part.

The vessels by which the blood is returned to the heart, are called *veins*. The blood in them receives but little of the impelling force of the heart, and therefore moves not with a strong tide or current, but glides *evenly* and *gently* on: hence wounds of these vessels are of very little importance, a small degree of pressure by a finger, or a dossel of lint, or some folded linen, with wheat flour, upon the wounded part, will effectually stop the bleeding, till surgical assistance can be procured. The same will be sufficient in cases of divided arteries, when the vessels are small, or when a tourniquet or bandage is not at hand.

Agaric, and other fungous substances, and preparations of iron and the mineral acids, have been much extolled for stopping the bleeding of wounds; their astringent effects, if any they produce, are very temporary, and are *always* productive of mischief, by irritating the wound, and preventing the union of its edges, or what is termed its healing on the first intention.

The same may be said of Friar's or Turlington's balsam, tincture of myrrh, &c.

OF VENÆSECTION (ABSTRACTION OF BLOOD FROM A VEIN). — The operation of bleeding being so frequently performed by farriers and barbers, it is generally regarded by the public as trivial with respect to its execution. However, whether we consider its influence on the system, or the niceness of the mode necessary for effecting it, it is nearly equal in importance to any operation in surgery; and hence many expert surgeons have almost an invincible dislike to it, while the person ignorant of the great nicety, steadiness, and exactness necessary, as well as its effects on the constitution, performs it with the greatest freedom, but not with uniform success; as is proved by the many melancholy cases that are admitted into our hospitals in consequence of the ignorance of the operator, either by wounding a tendon or puncturing an artery.

When the intention is to lessen the general mass of blood, the superficial veins on the front of the arm, over the bend of the

elbow, are not only more safe and convenient for opening, but experience has proved that the blood flows more freely from them, which, in many acute diseases, is of great consequence; for it is a well-established fact, that the *speedy* extraction of a few ounces of blood is more beneficial than double the quantity taken slowly from a small vein or orifice.

The person being properly seated in a good light, a bandage should be applied round the upper arm about three fingers' breadth above the elbow, sufficiently tight to compress the veins so as to prevent the return of blood, but not so tight as to prevent its passing by the brachial artery; for after the ligature is applied, the pulse should continue to beat, otherwise the vein will scarcely bleed after it is opened. A vein of moderate size, under which *no beating* or *tendon* can be discovered, should be chosen. The arm should be extended, and if the vein do not rise well, the patient should shut his hand or grasp a stick: the operator should then take the arm into his left hand, and if the vein appear loose under the skin, he should place the thumb of his left hand on it, about an inch and a half or two inches *below* the part he has fixed on to make the puncture. The lancet, being firmly held between the fore-finger and thumb of the right hand, is then to be *steadily* introduced into the vein *obliquely*, and taken out by *elevating* the *point* so as to enlarge the puncture. When the quantity of blood judged sufficient has flown, the ligature is to be removed; and the edges of the orifice being carefully brought together, a compress of fine linen is to be laid over it, and the arm bound up with a riband. The right arm is more convenient to the operator than the left. If the patient be subject to faint during, or after the evacuation of blood, he should be placed either on a bed or couch. In some diseases, however, as strangulated rupture, inflammation of the brain and lungs, &c., it may be deemed advisable to induce fainting; for it is an admitted fact, that when bleeding produces a degree of fainting, it proves in those cases much more serviceable. It will, therefore, in some instances, be proper that the *trunk* of the body be placed erect on a chair, as most favourable for producing this effect.

So many unpleasant circumstances happen, not only during the operation (as the cellular membrane blocking up the orifice, the blood passing under the skin, &c.), but from the loss of blood, that it should only be performed by, or at least with the consent of a medical practitioner; for, as an old physician justly observes, "it is taking away what medicine cannot give." In internal bruises, occasioned by severe falls, it is certainly necessary that the patient should lose blood immediately; when, therefore, the aid of a surgeon cannot be readily obtained, the *advantage* that would result from the *immediate* extraction of

blood may, in general, more than counterbalance any slight mischief that may ensue from the operation not being judiciously performed. In sudden attacks of apoplexy, inflammation of the lungs, pleurisy, and all internal inflammations and inflammatory fevers, attended with determination of blood to the head or lungs, the *speedy* loss of blood is often of considerable importance; but as the *topical* extraction may prove more beneficial than *general* bleeding, even in such cases it will be advisable to defer it till the practitioner arrives, provided a greater delay than six or eight hours be not occasioned by it.

The symptoms of plethora, and particularly the fulness of pulse, on which popular medical writers have laid so much stress, as indicating the necessity of bleeding, are very fallacious; for inflammation of either the lungs, brain, or bowels, is often attended with a *small* and *feeble pulse*, which *after* the loss of blood will become *full* and *strong*: hence, again, in apoplexy, the pulse is rendered feeble in consequence of the compression of the brain, which frequently after the evacuation of blood will so far rise as even to indicate plenitude and strength; and it often happens in dropsical complaints, where the loss of blood would prove fatal to the patient, the pulse will beat with unusual strength. The pulse likewise of an old person will feel hard and firm, from the *rigidity* of the coats of the vessel; hence the learned Celsus justly calls it "res fallacissima;" and the late Dr. Heberden, in the London Medical Transactions, has published some ingenious observations, to show how little it is to be depended on *alone*. — (*See* the remarks on the pulse, under the head of QUESTIONS TO PATIENTS.)

ON BLEEDING BY LEECHES, &c.—Notwithstanding the general employment of leeches in this country, for the purpose of local bleeding, not one physician in fifty is acquainted with the quantity of blood a leech extracts, and of that which escapes after its removal. The common practice of physicians is to order a certain number of leeches to be applied, without any directions as to their size, although a large leech will take away more blood than half a dozen small ones. We have lately endeavoured to ascertain, by repeated applications of leeches of different sizes, the quantity of blood each extracts, and of that which escapes from the punctures after their removal; the results of which are as follow: —

A leech weighing three drachms took three drachms one scruple.

The blood which afterward escaped from the puncture amounted to three drachms and a half.

A leech weighing two drachms took two drachms ten grains.

Blood escaped afterward about two drachms and a half.

A leech weighing one drachm ten grains took one drachm ten grains.

The blood escaped afterward from the puncture was about one drachm.

A leech weighing half a drachm took thirty grains.

Blood escaped afterward from the puncture was about thirty grains.

The leeches were weighed immediately before they were applied, and again immediately after their removal. The bleeding from the punctures was encouraged by warm water, in the usual way.

The difference in the quantity of blood abstracted by twenty-four *large* leeches and the same number of small ones, is upwards of *seventeen ounces*, twenty-four large leeches taking away twenty ounces and a half, and twenty-four small ones only three ounces! The quantity of blood abstracted by a large leech and a small one varying so considerably, it behoves practitioners to give directions as to the size of the leeches that should be applied, more particularly when the patient is an infant. The discharge from the punctures of leeches may be considerably increased by applying a cupping-glass over them in the usual way.

In an early number of the Gazette of Health, the death of an infant from the loss of blood from the puncture of a large leech, in consequence of the bleeding having been kept up by sleeping in contact with its mother, is published. There seems to be a difference between the blood taken by the leech and that which escapes after its removal, the former having the dark appearance of venous blood, and the latter being florid (arterial), with a very small proportion of venous. The blood, however, may undergo a change during the time it remains in the leech. In typhus fever, in which *venous* congestion exists, and on which abstraction of *arterial* blood seems to produce great debility, it is of importance to ascertain whether the blood taken by leeches is venous or arterial. When there is a determination of blood to a part immediately connected by blood-vessels with the skin to which a leech is applied, or when the skin is inflamed, as in cases of inflamed joints, &c., more than three times the quantity of blood specified above will escape from the puncture. In one case of inflamed knee, and one of considerable determination of blood to the head, in a young subject, more than two ounces of blood escaped from the puncture of a large leech. The state of the blood-vessels of the part, and of its connection with an internal inflamed part, should therefore be considered on ordering abstraction of blood by leeches. In cases of inflammation of the lungs, or of any viscus of the chest, abdomen, or pelvis, there being no direct communication by blood-vessels with the skin, blood abstracted from it by leeches, although immediately over the inflamed part, cannot be

considered topical bleeding, its good effects arising from reduction of the general mass. In cases of internal *membranous* inflammation, as of the pleura and peritonæum, abstraction of a few ounces of blood by leeches, applied to the skin over the affected part, frequently acts more beneficially in reducing the inflammation than double the quantity taken from a vein; but in such cases, those membranes are more connected with the skin than the viscera which they cover, the former (the pleura) being extended over the internal surface of the cavity of the chest, and the latter (the peritonæum) over that of the abdomen.

The secondary *effects* of the different modes of abstracting blood on the system have been much neglected by physicians in general. The secondary effects of bleeding by leeches are very different to those which follow the loss of blood from a large vein (venæsection), or from an artery (arteriotomy), or from scarifications, termed cupping. The blood from the punctures of leeches, in cases of deep-seated inflammation, escapes so gradually, that the vital powers sink considerably after the loss of a few ounces, the action of the heart becoming feeble, the countenance pale, the brain confused, and the patient often remaining in a state of great debility, without experiencing proportionate reduction of the local inflammation. These effects are very common in cases of typhus, when the leeches are applied to the temples, with a view of reducing the apparent inflammatory excitement of the brain; whereas, after four times the quantity of blood taken from a vein, there is, after the first effect, a *considerable re-action* of the system, during which the circulation of the blood is equalized, *i. e.* equally distributed to every part of the body, the consequence of which is, the local congestion is removed, and the morbid determination to the part effectually counteracted. When the blood is taken from a large orifice, the first effect is often fainting; when the re-action is greater, and of course its operation in bringing the distended vessels of the internal inflamed part into action more effectual. These secondary effects I have never witnessed after abstraction of blood from leeches or cupping, or from loss of blood from arteries, when it escapes very slowly. It is worthy of notice, that after abstraction of blood from a vein, œdematous swelling of the legs very often considerably decreases, whereas after loss of blood by leeches, or by cupping, it generally increases. After a loss of eight ounces of blood by leeches, the skin generally becomes cold and clammy, and the pulse feeble; but after the loss of double the quantity from a vein, the skin soon becomes warm, and the pulse rises.

In cases of typhus fever, where there is evidently local congestion, I have never seen any permanent good effect from the application of leeches. In such cases, I conceive the congestion

is venous, from debility of heart. The propulsion of the blood through the veins is dependant on the power of the heart and arteries; and when that power is reduced by abstraction of blood from the arterial system, by leeches or cupping, the progress of the fever is prolonged, and of course the probability of recovery more doubtful. During the time the vital powers are ceasing, the heart and arteries being capable only of conveying the blood into the veins, the venous system is always found full of blood, and the arterial nearly empty, after death. The loss of blood from a vein we have always found more or less beneficial in cases of local congestion attendant on typhus fever. The question of the propriety of bleeding, even in such cases, appears to me a most momentous one; and I suspect some physicians, who have so highly recommended it, were influenced by a desire to give publicity to their names. That many hundreds have been hurried to their graves by this practice, will not admit of a doubt. In typhus fever, although local venous congestion exists, the sanguiferous system in general is in an opposite state, and the patient, in fact, cannot bear the loss of blood. When the vessels of the head are overloaded with blood, an aperient medicine, and even stimulants, by increasing the circulation in the abdominal viscera, act beneficially. Whoever considers the extent of the internal surface of the stomach and intestines, will not deny that a stimulating purgative, in cases of local venous congestion of the head, must act as a very powerful derivative, when the circulation is languid in the extremities.

The most powerful remedy in removing local and general plenitude of veins, or even local arterial distension, is an emetic. During the operation of an emetic, probably in consequence of the mechanical action of the abdominal muscles (the diaphragm, &c.) on the arteries of the chest and belly, the blood is propelled through the vessels of the extremities, and the whole surface of the body and the vessels which are over-distended being thus brought into action, and the determination of nervous energy being destroyed, the local mischief is often removed, without reducing the strength of the patient by loss of blood. Mr. Alcock, a scientific and observant surgeon of London, has published an interesting case of inflammation of the larynx, in which (bleeding, blistering, and an aperient medicine having produced no sensible impression,) he prescribed an emetic. After the remedy had operated, the inflammation ceased in a few minutes, and the re-action of the system running high, he thought it proper to reduce the quantity of blood. He accordingly opened a vein in the arm, from which the blood flowed very freely, although on the preceding day he could obtain very little from it. This case clearly proves the advantage of exhibiting an emetic in local con-

gestion, if any proof were wanted. In cases of simple apoplexy, *i. e.* apoplexy from congestion of blood-vessels without effusion, the good effects of an emetic, by equalizing the circulation, or restoring the balance between the arterial and venous system, is well known, although during its operation the afflux of blood to the brain (arterial of course) is considerably increased. On the same principle, emetics have proved beneficial in cases of hæmorrhage from the uterus and lungs. When, therefore, in cases of active internal inflammation, abstraction of blood, counter-irritation of a blister, and aperient and sudorific medicines, do not succeed, an emetic is an important remedy. In cases of local congestion in typhus fever an emetic may supersede the necessity of bleeding, and by equalizing the circulation, will often terminate the fever in a few hours. In congestion of the lungs of elderly asthmatics, and those affected with chronic cough, an emetic also acts very beneficially, on the same principle.

When leeches are applied near to the verge of the anus, the blood that escapes after their removal appears to be chiefly venous, and the quantity is greater than from any other part of the body. The blood coming principally from the viscera of the abdomen and pelvis, the practice of applying leeches to this part is very common in France, in cases of inflammation of a viscus of the abdomen, or affections of the head, from chronic congestion of the viscera of the belly. The *great* benefit such patients experience from the loss of a small quantity of blood from piles is greatly in favour of this practice. A certain class of physicians prefer an application of leeches or cupping to abstraction of blood from a vein, for the politic reason, because if a surgeon were employed, he might interfere with the treatment of the case, or question the propriety of the remedy. One great objection to leeches, in cases of internal inflammation, is the long exposure of the chest or abdomen during their application, and the subsequent bleeding.

I shall conclude this article, with an extract from a late number of a respectable periodical work, on the mode of applying leeches, although not altogether new.—"The other night I had occasion to apply some leeches on my own person. I could obtain only half a dozen, without sending a very considerable distance for them. The following is the plan I adopted; I applied them all very easily, but the difficulty remained in this light,—how were they to be applied a second time, as the manner in which they are usually cleansed kills them, or nearly so? Instead then of applying to them salt, as is the general custom, I immersed them in a cup of vinegar, and either from the peculiar effect of the acid, or their own effort to extricate themselves, they gradually contracted themselves, till they had disgorged all the blood they had

imbibed. They were then washed in a little clean water, and applied again to the same orifices, which some of them adhered to, whilst others preferred making fresh ones. In this manner each of them was tortured four or five times, after which the whole were put into clean water, and appeared as lively as when first employed." — (*See* EVACUANTS, p. 32.)

ON PERIODICAL BLOOD-LETTING. — The loss of blood at certain periods of the year is an error very common amongst the lower orders of people, and I conceive extremely inimical to the constitution. Bleeding is unquestionably a remedy of the greatest importance in a number of diseases; but, like all others, it has been much abused, and perhaps in few instances more than in that which relates to this absurd custom. A celebrated author observes, that "he who wantonly or capriciously squanders this vital fluid, obstructs, and, as it were, cuts off, the sources of his support and regeneration." The most essential and constituent parts of the human frame are formed from the blood; and though it be true, that the blood evacuated by periodical bleeding is soon reproduced by the activity of the vital powers, yet this restoration is only brought about with considerable efforts, and at the expense of the whole machine. In most inflammatory affections, as I have already observed, bleeding, regulated according to circumstances, is often of greater importance than any other remedy, and doubtless has saved the lives of many; but those persons who, from a notion of preventing diseases, suffer themselves to be bled *regularly* once, twice, or oftener, in a year, whether they are indisposed or not, ought to be informed that they are using means which, if persisted in, are likely prematurely to bring upon them those very diseases which they profess so much to dread, and appear solicitous to avert. Where the habit has been established, it may be safely and easily overcome by substituting, in the place of bleeding, at those periods, a gentle purgative, and in order to prevent its future necessity, to abstain as much as possible from animal food and spirituous liquors. A vegetable diet affords the same support as meat; and has the very important advantage of not producing plethora.

The system is affected in two ways by plethora. In elderly people especially, the vessels are often overloaded, and by compressing the brain, produce great prostration of strength, coldness of the extremity, indigestion, &c. In this case we have recourse to bleeding, to remove a mechanical cause; and by the extraction of blood, the patients seem to feel as if a weight was taken off the springs of life, the circulation becoming more free, and the heat of body increased. In young subjects, and not unfrequently old ones, the blood abounds too much with red parti-

cles, occasioning increased heat or fever, and irritation of brain; in this case we extract blood for the purpose of diminishing the quantum of red particles in the circulating mass. In cases of accidents, we bleed with the same view, to take off a state of system that would favour inflammatory action, and thus prevent fever as well as local inflammation.

OF SUBSTANCES LODGED IN THE GULLET, OR STOMACH. — When any substance is lodged at the *top* of the gullet, it may, in general, be removed by the fingers, or a pair of forceps; but, when it has descended *far down*, it will be necessary to push it into the stomach, by introducing a probang (made with a piece of soft sponge fastened to the end of a slip of whalebone); but if the article swallowed be *sharp-pointed*, or have *acute* angles, this operation must be conducted with *great care*, as by the employment of *much force*, it may be made to penetrate the substance of the gullet, which, in cases of *pins*, *needles*, *nails*, or *sharp pieces of bone*, or *glass*, is not an unfrequent occurrence.

When the article has passed into the stomach, whether it be sharp-pointed, angular, or large, no means should be taken to *hasten* its passage through the alimentary canal; for if it be sharp-pointed, it will be less likely to injure the intestines by passing *gently* with *hard* fæces, than by being hurried through them with *liquid* ones; and if it be large, as a shilling, a halfpenny, a bullet, or a large fruit-stone, it will require some time to pass through the orifice of the stomach (termed the pylorus) into the intestines, and the more gradually it makes its way, the less mischief is likely to ensue. When this practice has been pursued, I never knew any serious consequence to follow the swallowing of such articles; but have frequently known much mischief produced by the exhibition of aperient medicines, with a view to carry them off more speedily by stool.

If the article be metallic, as lead, copper, &c., it will be advisable to caution the person against the use of *acids*, till it has passed through the intestines, and to correct and prevent acidity, by taking a little magnesia every morning.

Emetics should never be given with the view of bringing any foreign body from the stomach, without the sanction of an *experienced* physician or surgeon, unless it is likely, from its chemical powers, to injure the stomach.

The late Dr. Buchan, in his Domestic Medicine, observes, that if the various means he has suggested to hook out substances lodged in the gullet should fail, the operation of "bronchotomy, or opening the windpipe, must be performed." What advantage could possibly be derived from making an opening into the windpipe to remove a substance retained in a different

tube, must puzzle an anatomist to conjecture. Should an apothecary, not conversant with the anatomy of the parts, be induced, by the great agony and apparent danger of the life of the person, to follow this author's advice, and after making the incision of the windpipe, and not finding the obstructing body there, should cut down to it, the life of the patient would very likely be destroyed.

When the substance cannot be removed, and the patient's life is endangered from the want of due nourishment being thrown into the system, or the person likely to be suffocated in consequence of the compression of the posterior part of the windpipe, œsophagotomy, or making an incision into the gullet, may be necessary; in performing which the windpipe is not wounded. On account of the imminent hazard attending this operation, from the great blood-vessels that lie contiguous to the part, it is never practised but in cases of the utmost danger, and should be performed only by a surgeon well versed in the anatomy of the parts. Under such circumstances, nourishing clysters have been known to support life for many weeks. (*See* NUTRIENT CLYSTER, page 106.)

OF SUBSTANCES AND INSECTS LODGED IN THE EAR. — Although the formation of the external parts of the ear and viscid nature of the internal secretion are admirably calculated to prevent flies or foreign matter getting into it, yet it happens that much distress is sometimes induced by children pushing small peas, fruit stones, and other such articles, into their ears, and by flies and other insects frequently creeping into them, which, by touching the tympanum, produce much noise and distress. They may, in general, be removed with facility by a common forceps: when the substance, however, is round, it may be more readily turned out by means of a curved probe, the end of which should be passed behind it: if the article be large, a little oil should first be dropt into the ear.

When an insect is so far in the ear that it cannot be taken out with forceps, the best method of removing it is to wash it out by throwing in warm water, or any other mild liquid, by means of a syringe. If it adhere with firmness, which it often does while living, the ear may be filled with oil or brandy, which may be kept in for some time (by the person resting his head upon the opposite side), for the purpose of killing it, when it may be readily removed by forceps, or a curved probe.

Peas, and other soft bodies which swell with moisture, are so apt to become large by remaining in the ear, that they should be removed as soon as possible. When it has been neglected, and the substance cannot be taken out from its enlarged state, it must be divided with the points of a pair of scissors, or a sharp

small hook cautiously introduced along the passage; and as soon as sufficiently divided, it may either be removed by piecemeal with the forceps, or washed out with a syringe. In the same manner peas and other extraneous bodies may be removed from the nostrils.

THE MEANS OF FUMIGATING INFECTED CHAMBERS, &c. AND PREVENTING THE PROGRESS OF CONTAGIOUS FEVERS. — For the important purpose of purifying the contaminated air of the wards and rooms of patients afflicted with contagious fevers, various means have been employed from the earliest period of medicine.* The acetic acid (vinegar) and different mineral acids have of late years been much used for this purpose, and ample experience has proved them to be efficacious. The late Dr. Johnstone of Worcester, in a dissertation on the malignant epidemical fever, which prevailed in Kidderminster in 1756, asserts, that he found vinegar sprinkled about the room when the weather was warm and boiled with myrrh or camphor, effectually to correct putrid effluvia. "The steams arising from the latter," the Doctor asserts, "preserve the air from putrefaction, will insinuate themselves by the absorbent vessels of the lungs into the blood-vessels, and greatly assist in impeding the progress of putrefaction in the fluids," &c. The camphorated acetic acid, No. 88., evaporated in a saucer over the blaze of a candle, is not only more commodious, but, from the volatile nature and pungency of the acid, will have a more rapid action on contagious or putrid effluvia.

Citizen Guyton Morveau recommends the oxymuriatic gas which he found particularly efficacious in correcting the putrefaction of dead animal matter in the church of Dijon. For fumigating *uninhabited* rooms, the muriatic acid gas may answer much better than the steams of vinegar or nitrous gas; but as it considerably irritates the lungs, and is unfit for respiration, it is not proper for the apartments of the sick.

For disengaging the muriatic acid gas, Citizen Guyton Morveau gives the following directions: "Put into the middle of the place which is to be purified, a chafing-dish, on which a pan half filled with sand and ashes is to be laid, on which a glass or earthen bowl, containing common salt, is to be placed; the sand being heated, pour on the salt, at once, vitriolic acid, and retire immediately: the windows and doors should be exactly shut. The proportion for a high and spacious ward, containing twenty beds

* Hippocrates, upwards of two thousand years ago, directed herbs and nitre to be boiled in vinegar in the chambers of the sick.

is, of common salt, nine ounces six drachms, and of vitriolic acid, seven ounces and seven drachms (by weight), which quantities are to be augmented or diminished according to the space of the room to be purified." Inhabited rooms this author recommends to be fumigated with the oxygenated muriatic acid, which is made by adding black oxide of manganese, in the following proportion: — Take of common salt, two parts; black oxide of manganese, one part; vitriolic acid, two parts; after rubbing the salt and manganese together in a glass mortar, place the mixture in an open glass vessel in the infected chamber, and pour on it the vitriolic acid. The fumes are immediately exhaled and diffused through the atmosphere of the room, and thereby effectually destroy putrid particles or contagious matter.

The nitrous acid gas is preferred by Dr. James Carmichael Smyth, who directs it to be used in the following manner:— "Take fine sand, and heat it in an iron ladle or shovel; when made very hot, fill with it an earthen quart pipkin, in which immerse a common tea-cup, containing about half an ounce of vitriolic acid, to which, when it has acquired a small degree of heat, gradually add the same quantity of purified nitre in powder; stir the mixture with a slip of glass until the vapour arise in considerable quantity. The pipkin is then to be carried about the room, (the doors, windows, &c. being closely shut,) occasionally putting it under the bed, and in every corner and place where any foul air may be supposed to lodge; the fumigation to be continued till the room be filled with the vapour, which will appear like a thick haze."

In very malignant cases, it should be repeated twice a day; but otherwise, once will be sufficient; which should be regularly continued some days after the contagion is supposed to be destroyed. If the vapour irritate the lungs, so as to excite much cough, fresh air should be admitted, by opening the doors or windows of the room. After a few repetitions, this effect will not, however, be produced; but, on the contrary, it will be found agreeable and refreshing. It should be particularly observed, that no wood nor metal be employed in the process, otherwise *dangerous* and *offensive* vapours will be disengaged with the nitrous. Proper attention should likewise be paid to cleanliness in the apartments, clothes, and bedding.

The nitrous vapour, so disengaged, not only destroys the subtile infectious particles arising from putrid bodies, or from persons labouring under contagious fevers, as effectually as the muriatic gas recommended by Citizen Guyton Morveau, but also communicates to the atmosphere an animating principle, which, by respiration, enters the system in such quantity, as evidently to invigorate the vital powers and cheer the mind; and thus

it proves more beneficial than medical men generally suppose. The oxygenated muriatic acid of Citizen Guyton has a similar effect, and was preferred by Mr. Cruickshank, on the supposition of its being more efficacious, as well as more pleasant to respire.

The solutions of the chlorurets of sodium and calcium have lately been highly extolled by M. Labarraque of Paris, as disinfecting liquors, and particularly for purifying the air of the chambers of patients affected with typhus fever, or contaminated by putrid effluvia: I am, however persuaded, from repeated trials, that they possess no advantage over the oxymuriatic acid, and when not properly made, are, in fact, very inferior to it.

In order more effectually to resist the effects, and check the progress of infection, the following rules should be particularly enforced:—

1st, None should be permitted to visit patients labouring under infectious disorders, but those who are impelled by the calls of duty, affection, or necessary business.

2dly, None should be admitted *fasting* or *before* breakfast. The afternoon is the fittest part of the day for visits of this kind: or if they must be made in the morning, a glass or two of Port or Madeira, or a dose of compound tincture of bark, or rhatany root, ought previously to be drunk. A handkerchief, sprinkled with camphorated acetic acid, held occasionally to the nose, is also an useful precaution to those who visit infected persons. Smoking may also be of some service.

3dly, The utmost attention to *cleanliness* in *every thing* relative to the patient should be observed. This is particularly requisite in camps, hospitals, poor-houses, gaols, &c. The frequent change of linen and the *immediate removal* of every thing of an *offensive nature* are absolutely necessary.

4thly, The free admission of *pure* atmospheric air * is indispensably requisite. The absolute necessity for this caution is strikingly evinced by what is recorded to have happened at Philadelphia, in the yellow fever of 1793. Of 2000 persons who were removed to tents erected in the fields, only 17 died in 25 days; whilst out of an equal number in the city, 178 perished.

5thly, Attention ought to be paid to the *temperature* of the air. *Extreme heat* might increase the tendency to putrefaction, which exists in a greater or lesser degree in most infectious disorders. *Extreme cold*, on the other hand, is not only very ungrateful to the feelings of the sick, but, by its debilitating pro-

* The atmosphere is not, as was formerly supposed, a simple elementary body, but consists of two very different kinds of air, viz. oxygen and nitrogen.

perty, may increase the virulence, and extend the ravages of contagion.

6thly, When a person dies of an infectious distemper, the body should be removed, *as soon as possible*, into a room *appropriated to that use*; it should be then wrapped in a pitched cloth, and the friends of the deceased desired to proceed to interment so soon as is consistent with propriety. Early burial was so much enforced during the plague at Marseilles, that Dr. Arburthnot, in his Treatise on Air, asserts, that it was clearly ascertained many were buried alive; a body apparently dead should not, therefore, be too hastily consigned to the grave, the natural heat and pure air of the earth being very powerful agents in restoring the vital functions, in case of their suspension.

7thly, As infection is liable to be communicated by clothes which have been worn by the sick, such clothes ought not to be used, until they have been well washed, and thoroughly fumigated.

8thly, After the recovery or decease of a person labouring under an infectious fever, the roof or walls of the apartment in which he lay ought to be white-washed, the windows kept open during the day, and flowers, or herbs, immersed in water, placed in such parts of the room as are more immediately exposed to the action of the sun's rays upon them. *

9thly, The establishment of fever-wards, and houses of recovery, for the reception of persons attacked with infectious fevers, are charities which reflect immortal honour on their founders, and are better adapted to check the ravages and prevent the recurrence of these maladies in large towns, than perhaps any other plan which has hitherto been devised.

It is worthy remark, that many very respectable practitioners in the West Indies, as well as on the continent of America,

* Whilst Dr. Priestley was engaged in a series of experiments to enable him to purify contaminated air, he discovered that vegetables answered this purpose most effectually. The experiment by which he illustrates the fact is this: — Having rendered a quantity of air very noxious, by mice breathing and dying in it, he divided it into two receivers inverted in water, introducing a sprig of mint into one of them, and keeping the other receiver, with the contaminated air in it, alone. He found, about eight or nine days after, that the air of the receiver into which he had introduced the sprig of mint had become respirable; for a mouse lived very well in this, but died immediately upon being introduced into the other receiver, containing the contaminated air alone. All strongly-scented objects vitiate the air; and it has been satisfactorily proved by the experiments of Ingenhouz, Priestley, and others, that most plants emit during the night a large proportion of azotic or irrespirable gas: it is on this account that flowers suffered to remain all night in a bed-room sometimes prove very deleterious in their effects. Nor is it less unhealthy to sleep in a room where a quantity of green fruit is constantly kept, as from its fragrance a portion of inflammable matter transpires, which soon impregnates the air.

deny that the fevers which at times have proved so destructive in those places were contagious; and Dr. John Vaughan, after investigating the cause and nature of the fever which prevailed with such violence in the borough of Wilmington, in North America, in the year 1802, concludes, contrary to the general opinion, that the disease was not imported, that it was not contagious, but that it depended upon some noxious state of the atmosphere, owing to certain putrid effluvia, which formed a constituent part of heavy fogs, that used to collect in the evening, and be suspended over the flats during the night. Hence we find that fevers, which are attributed to contagion, will make an equally rapid progress where guards have been placed, as they have been in Russia, and where high walls have been built to prevent communication; and some instances have happened of a great part of Europe, and some of Asia, Africa, and America, suffering from similar complaints nearly at the same time, from a very widely-spreading noxious effluvium in the air. Dr. Desgenette, physician to the French army in Egypt, and MM. Assalini and Larry, having endeavoured to communicate the plague by infection without effect, were led to believe that the plague is not contagious; but such experiments are by no means satisfactory; for in all cases of infection, a certain state of constitution must exist to render the person susceptible of its action; hence those whose systems are perfectly healthy, or, as is technically termed, *not predisposed* to receive the contagion, may expose themselves to its influence with impunity.

The partial appearances of this fever, and its frequent occurrence at the same places, have induced some practitioners to suppose that it was produced by noxious vapours, or putrid miasmata disengaged from the earth. The French historian Mezeray, as quoted by the Hon. Mr. Boyle, states, "that a vapour broke out of the earth in the kingdom of Cathay, that caused fevers more fatal and universal than were ever before known, and that it consumed every thing before it, even the trees and stones." Hoffman, Sennertus, and many of the most respectable ancient physicians, have very justly observed, that the *fear* * of contagion, under a *bad constitution of the air*, has

* A remarkable instance of the influence of the depressing passions, in this respect, has been lately noticed by Captain Philip Beaver, in a work entitled "African Memoranda." This intelligent author, speaking of the disease which prevailed among his men at Bulama, observes, "It is melancholy, no doubt, but many have absolutely died through fear. More courage, and greater exertions, I firmly believe, would have saved many of them; but a lowness of spirits, a general despondency, seems to possess every body. When taken ill, they lie down, and say they know they shall die; and, what is very remarkable, I have never yet known one recover after having, in such a manner, given himself up."

been more productive of disease than the air itself; and, it is to be feared, has been the cause of many unfortunate sufferers being lost for want of proper attention, and of some being buried alive.

Whatever the original source or nature of the contagion may be, after it enters the circulation, which is probably by respiration, like other specific poisons, it evidently generates a quantity in the system, which, by passing off by perspiration, contaminates the air; the means, therefore, recommended for purifying the air and ventilating the chamber must considerably tend not only to check its progress, but also to diminish its malignancy. — (*See* TYPHUS FEVER.)

ON DIET. — By the fashionable and leading physicians and surgeons of this metropolis (except Mr. Abernethy), the dietetic management of patients is so much neglected, that a physician or surgeon would seldom trouble himself about it, if the patient or the nurse were not to apply to him for instructions respecting it. Hippocrates paid very particular attention to regimen; and such was the importance he attached to it in the treatment of diseases, and as the means of securing the body against a variety of maladies, that he was desirous of being considered the founder of this most important part of medicine. Of the practitioners of the present day, Mr. Abernethy is the only one who considers diet of more consequence than medicine, in the treatment of chronic diseases, and also as the means of preserving the body in a state of health. The opinions of this practitioner, on this head, are so similar to those of Hippocrates, both with regard to the constitutional treatment of chronic diseases, and the preservation of health, that his system is, in fact, with the exception of the blue pill, that of Hippocrates, in the fashionable dress of the day.

Notwithstanding the numerous works that have been published for the purpose of directing man in the choice of salubrious food, or in the regulation of his diet, in order to preserve health and ensure long life, the diseases which are generally the consequences of intemperance, or mismanagement of diet, are as prevalent, and as fatal, as they were before any work appeared on the subject; and the invalid seems to be more at a loss after reading a work on diet, than he was before he took the trouble. Indeed, notwithstanding all that has been written on the subject of diet by Hippocrates, Boerhaave, Cullen, Arbuthnot, Fordyce, Willich, Sir John Sinclair, Lambe, and others, a difference of opinion still exists among the most learned philosophers, whether the Creator intended man should derive his corporeal support from the vegetable, or from the animal kingdom, or from both. Dr. Lambe, a physician of great experience and observation, and a very able physiologist, contends that man, from his anatomical structure, (particularly of the teeth, stomach, and intes-

tines,) was destined to live on vegetables only. The doctor says he has ascertained, that those who confine themselves to a vegetable diet, never experience thirst, and do not require the use of drink, provided they have not accustomed their stomachs to the use of wine, or any other cordial liquor.

Gassani, in a letter to the celebrated Van Helmont, argues with much ingenuity in favour of a vegetable diet; and he, like Dr. Lambe, draws his reasons from the anatomical structure of the human frame. The same line of argument has been adopted by succeeding writers; but of the moderns, Dr. Lambe has certainly been the most earnest and persevering in his efforts to establish his opinions; and if he has failed to make many converts to his doctrines, men of science, who have read *all* his works, must allow that he has advocated the cause with more ability than any other writer.

Some physiologists, who have paid attention to animal chemistry, assert, that it is of no consequence whether a man, whose general health is good, lives on vegetables or animal food, so as he takes enough and avoids excess, because they have not been able to discover any difference between either the chyme formed in the stomach or the chyle formed in the duodenum from meat and that from vegetable food. Whether this be the case or not, I cannot say from my own knowledge; but this I can say, that the flesh and blood of animals are affected by the food with which they are fed. The flesh of the pig, of the goose, the duck, &c. chiefly fed on fish, has a peculiar odour and taste; and that of the ox fed on linseed cakes and on the yellow turnip exhibit different appearances. The colour and taste of the milk of a nurse will also be affected by different food, and even rendered purgative by an aperient medicine taken into her stomach: it is, therefore, in my opinion, ridiculous to say, that the chyle formed from vegetable and that from animal food does not differ; and that the chyle being the same, the juices of the body are not affected by the *nature* of the food, provided it be properly digested. It is a fact well known to farmers, that when pigs, sheep, fowls, &c. are kept on certain articles, although they do not disorder their stomachs, and although they afford considerable nourishment, they produce diseases of the skin. These facts, it may be said, favour the doctrines of the humoral pathology, which has been long obsolete in this country. The humoral pathology, in my opinion, is the most rational that has been broached, and is better supported by facts than any of the modern systems. — (*See* ALTERATIVES, p. 3.)

When a medical man gives an opinion of the properties of an article of diet, or of a medicine, it must of course be relative; for, as I have observed, the peculiarities of the constitution, the

habits, the temperaments, the age, and many other circumstances must be taken into consideration. The truth of the old proverb, "What is one man's food is another man's poison," every physician of experience and observation, who has attended to the effects of different articles of diet on different constitutions, &c. &c. I think, will admit. A person should, therefore, be guided, in the adoption of a diet, by its effects on his own stomach and general health. The old saying, that a man is either a fool or a physician at the age of forty, applies particularly to diet; for at that age, if he be not a fool, experience and observation would have enabled him to be a better judge of what agrees with himself, and the quantity he ought to take, than any physician can be. The peculiarities of constitution, however, undergo changes with the body; and it often happens, that the articles of diet which disordered the stomach, or disturbed the general health during the period of youth or manhood, agree with him after the age of forty-five or fifty. Rather than say that the man is a fool who is not capable of acting as a dietetic physician to himself at the age of forty, I would say the man is a fool who, at or after the age of forty, implicitly submits to the dietetic rules of any physician who is ignorant of the peculiarities of his constitution, of his habits, his temperament, &c. &c. Of this I am certain, that the bodies of thousands of invalids have been hurried to the grave in consequence of strictly following the positive instructions, relative to diet, of physicians, who had not taken the trouble to become acquainted with their habits, constitutions, &c., and who had not sufficient intellect to depart from their own contracted systems.

With respect to the natural food of man, *i. e.* whether he were destined to live on products of the vegetable kingdom, on animal food, or on a mixture of both, great authorities may be adduced in favour of all. The celebrated physiologist, Haller, contends, that the stomach of man is formed between that of carnivorous and herbivorous animals, *i. e.* partakes of both; but, says he, it approaches nearest to that of the granivorous; and the celebrated physiologist, John Hunter, whose authority, in a question of comparative anatomy, is assuredly great, asserts that the human stomach is the link between animals who live on vegetables and those which are entirely carnivorous. Of this opinion is Mr. Abernethy, although he supposes that the chyle from vegetable and from animal food does not in any respect differ.

If the digestibility of an article in the human stomach has any thing to do with the question whether man be destined to live on vegetable or animal food, it would be in favour of the latter; for certainly animal food is more readily digested in the human stomach than vegetables, and even animal fibres are more readily

converted into chyme than vegetable farina; for the latter, as that of the potatoe, or of the pea, often appears in the fæces, when nothing like animal fibre can be detected. Animal food clearly approaches nearer to our nature, and one thing, greatly in its favour, is, it is derived from the vegetable kingdom. Some physiologists assert, that man, like brutes, should be guided, in the selection of his food, by his organs of smell, which are placed immediately over his mouth, to prevent his conveying any thing improper into his stomach; and certainly brutes generally smell an article before they take it. If man ought to be governed by this organ in the choice of food, there can be no question as to his being destined as much to live on animal as on vegetable food; for nothing is more grateful to the organ of smell of a hungry man than the odour of roasted meat; it is also grateful to his taste, and particularly agrees with his stomach. We may here notice a fact in favour of animal food, which was first observed by the late Dr. Beddoes, and which has not met with that attention from medical men it deserves; viz. that butchers, who live more on animal food than any other set of men, are not liable to the disease of the lungs, termed pulmonary consumption, which, from its prevalence and fatality in this country, is denominated, by the writers on the Continent, the English malady. Beddoes states, that he never met with an instance of pulmonary consumption in a regular butcher; that is, a man who had been engaged from his youth in the business of a butcher. In the whole course of my practice, I have never met with a consumptive butcher, nor have I ever heard of one. I have satisfied my mind, from extensive enquiry, that butchers consume more meat than any other set of men, taking it for breakfast, dinner, and supper. Now, if animal food produces a firmness in the texture of the lungs, which resists the structural mischief or changes that lay the foundation of tubercular consumption of the lungs, — a fact I cannot doubt, — it should assuredly form the chief part of the diet of the children of consumptive parents, or those who are predisposed, by hereditary taint, to pulmonary consumption. On the effects of animal food in correcting the verminous or leucophlegmatic habit of children and adults, I shall notice under the head of leucophlegmatic temperament. The chief objection to a diet of animal food is, it is apt, in people who do not take much exercise, to produce plethora, and thereby to dispose the body to inflammatory attacks; but this effect may be prevented by avoiding full meals. Every person should consider that he has a peculiar constitution of his own, and that to prevent a disease, to which he may be predisposed, from coming into action, he has a certain standard of health to maintain. If he be predisposed to, or threatened by a local disease, the first stage of which is inflammatory, he should, by means of diet, keep his state of health below par: if the dis-

ease be of a nature that a degree of firmness of the texture of the body be necessary to resist its action, which I believe to be the case in tubercular consumption, and verminous and hydropic diseases, I should prefer a diet chiefly consisting of animal food, in such quantity that will not produce plethora. If the system be what is termed leucophlegmatic or verminous, that is, favouring the production of parasites, as worms, hydatids, tubercles, &c., the state of the system should be kept rather above than below par. For this purpose the solid food should be chiefly animal, and wine should be allowed, in order to invigorate the digestive organs, that they may properly perform their office. If the body be naturally robust, and disposed to plethora or inflammatory attacks, or to local congestion, as of the vessels of the brain or lungs, the diet should chiefly consist of vegetables. The constitution in which the vital powers run high, and in which a degree of health is kept up by full meals and a stimulating beverage, is disposed to a class of diseases that requires the most decisive modes of treatment, in order to check and prevent a fatal termination. A state of health above par, in subjects naturally sanguineous, which is generally, if not always, a forced state, is, in fact, a more unfavourable condition of the body than the leucophlegmatic state, inasmuch as it is more disposed to formidable inflammatory attacks. In regulating the quantity of food, we should also take into consideration (whether animal or vegetable) its nutritious quality. It is common for people to form an opinion of the wholesomeness of articles according to the degree of nutriment they afford; but the term wholesome, applied to an article of diet, is relative. To a person whose state of health is above par, or whose predispositions or constitution render it necessary, in order to preserve health, to be kept below par, nutritious articles of diet are unwholesome, and those which afford little nourishment the most salubrious; and to the person of a leucophlegmatic or verminous habit, and who is disposed to diseases of debility, those articles which impart most firm nourishment are the most wholesome. Here I may observe that wine and spirits only strengthen the body by invigorating the stomach, so as to enable it to convert the food into good chyme, for the production of healthy chyle, and with this view only should it be taken as an article of diet. It does not strengthen the system directly, but indirectly; and if it be taken in such quantity that its stimulating influence becomes extended to the brain or nervous system, its secondary effect will be debilitating. Of the two, an indulgence in excessive meals, and in the abuse of vinous or spirituous liquors, the former is the most injurious to the body, and hence an inebriate generally lives longer than a glutton.

Mr. Abernethy lays more stress on the *quantity* of solid food to be taken at a meal, than on the nutritious *qualities* of it. He limits all his patients, whether short, tall, thin, or bulky, and without any regard to habit or temperament, to the same quantity of food for a meal; and as a proof of the great advantage arising from spare meals, he notices the case of Cornaro, a Venetian nobleman, who, by observing a spare diet, and keeping intemperance at a great distance, prolonged his life to a good old age, after having been pronounced, by his medical attendant, when at the age of twenty-three, to be strongly disposed to consumption. The unhealthy state of his body was the consequence of long indulgence in intemperance and debauchery. His system becoming feverish and much emaciated, his physicians told him, that if he persisted in his habits, his life must be necessarily short, symptoms of pulmonary consumption having appeared. Cornaro attended to their advice, and, after abandoning all the habits which had had such pernicious effects on his constitution, his general health improved, and, by continuing to live very abstemiously, he kept his system in a healthy state, and prevented the disease which had threatened his lungs from coming into action. It was necessary to preserve a state of health, in order to keep the lungs in a state unfavourable for the disease which threatened him, and for correcting the general bad effect of intemperance; but such a system cannot be applicable to *all* constitutions. With respect to *quantity* of food for one meal, the practitioner of experience and observation will allow, that one man requires more food to support his body than another, although of the same size, constitution, and trade, and takes the same degree of exercise. In fact, one will become corpulent with the same quantity of food on which the other will become emaciated. If we go to the brute creation for information relative to quantity, to which we are directed by Mr. Abernethy, on account of their being guided by instinct, which seldom errs, we find that one horse requires more food than another of the same age and size, although both take the same exercise; and if the accustomed quantity of either be diminished, he will become thin and spiritless. The same may be said of cows, sheep, pigs, and other animals. Again, if we go to the fountain-head for information on this subject, viz. the modes of living adopted by the medical profession, we find that they not only disregard quantity, making a meal not only according to the state of their stomachs, but according to the temptations of savoury and other dishes; and they are not even so particular to the quantity of wine as to limit it with extraordinary nicety. We have known a hypochondriac effectually cured by attending a dinner of the College of Physicians. After observing the liberty the mem-

bers took with all the dishes, simple and compound, that were introduced, some of which were of the most savoury kind, and with the various wines and the dessert, he discharged his apothecary, committed his pill-boxes and his treatises on diet to the flames, and at this time he enjoys a good state of health, without the aid of blue pill or any other medicine. He was not, however, predisposed to any constitutional malady, nor any local disease. Had he continued to limit his meals to a certain quantity, and to keep his system quiet by avoiding stimulants, I have no doubt the circulation in his viscera would have become so languid, and the absorbents so inactive, that a deposit would have taken place in the cellular substance of one or more of them, that would have laid the foundation of organic disease. If we go to the inhabitants of Italy, who pay particular attention to their stomachs and bowels, and who, from the idea that diseases arise, or are chiefly dependant on vitiated humours, are particular in selecting what they consider to be healthy articles, or those which will correct the humours of the body, we find, that with all their attention to correctives, as certain vegetable soups, sorrel, various alterative diet drinks, &c., they are not so healthy as the English. They distend their stomachs with such quantities of raw vegetables, soups, ptisans, &c., that cannot possibly, in the healthiest stomach, pass through digestion, and the *correctives*, instead of *purifying* the blood and *correcting* the juices of the body, have a contrary effect. Their muscular systems and their skins are, at the age of thirty, in a state of great relaxation; and the female, at the age of thirty-five, is as old in body as an English female is at fifty: they are perpetually affected with symptoms of indigestion, and their alimentary canals are distended with flatus. Such is the unhealthy state of the Italians in general, that they readily fall to disease, especially inflammation of the bowels or lungs. Cullen and other professional men have observed, that hypochondriacs who diet themselves by rule seldom live long, and that they produce a state of system which is readily disturbed by the smallest deviation; and they have also observed, that those who live to the age of forty-five or fifty were affected about every two or three months, either with vomiting, diarrhœa, or slight fever, — operations of nature to remove the effects of their mode of living on their viscera.

A certain regular rule is, no doubt, necessary when a part of the body is predisposed to disease; and even when the body is in a very healthy state, or not predisposed to any malady, one indulgence in intemperance may produce most serious disease.

I mean by the foregoing remarks to contend, that it is impossible to lay down rules for the regulation of diet, especially as to quantity, that can be applicable to every constitution; and ex-

perience has fully satisfied my mind, that the lives of many thousand nervous debilitated invalids have been shortened instead of prolonged by their altering their modes of living agreeably to the injunctions of their medical advisers, particularly of those whose practice is governed by a favourite theory, that will not allow them to take a proper view of their cases as connected with certain temperaments, peculiarities, habits, &c. &c.

Every person after the age of twenty-five should be able to judge for himself as to the *quantity* of food he should take for a meal, and also the degree of strength of his beverage, keeping in mind that his body is nourished not in proportion to the quantity or even to the nutritious quality of the food he takes, but to the quantity the stomach properly digests; and that the chief use of a beverage is to separate the particles of food, that a greater surface may be exposed to the action of the gastric juice, and that it should be stimulating only when the digestive organs do not properly perform their respective offices, and particularly when the nervous or sanguiferous systems are in a state of great debility. In ascertaining the quantity of any food at each meal, and the number of meals in the course of the day his system requires for the support of a proper degree of health, he should take care that his judgment is not misled by a variety of luxuries, or by an artificial appetite excited by sauces, condiments, or wine. His guide should be a slight sensation of fulness from one or two articles, which every person in health experiences when the stomach has received as much as it can properly digest. He should also keep in mind that the office of the teeth is to divide and bruise the fibres of animal and vegetable food in order to expose them to the action of the gastric juice, and thereby facilitate their conversion into chyme, and not allow time for fermentation, the products of which are gas and an acid which will render the process of chylification in the duodenum imperfect.

Mr. Abernethy does not allow his dyspeptic patients to drink during a meal, in consequence of supposing that any liquid, by diluting the gastric juice, must retard or interrupt the process of digestion. When the stomach or the system requires wine, the time for taking it, he says, is when digestion has so far advanced, that the stomach may require a cordial to enable it to complete the process, and the duodenum to form healthy chyle. A glass or two of wine taken during a meal, instead of increasing the sense of distension, speedily relieves it; and when I consider that the articles of diet, liquid as well as solid, we take pass through digestion, the time for taking wine seems to me to be during a meal. The introduction of an article into the stomach that is liable to become acid, at the time a meal is nearly digested, as tea, coffee, &c. is, in my opinion, more likely to disturb the

process of chylification, and thereby prevent rather than promote the formation of good chyle.

Diet consists in that course of eating and drinking which every man employs for the support of life; and varies therefore with every individual, in a certain degree, according to taste, temperament, age, predisposition, &c. In a medical view, it is proper to consider the course of diet which is best suited to each period, without regard to any thing extraneous; and in so doing I shall begin with that of youth.*

Of the diet of youth. — The diet of children and young people should consist greatly of diluents, in order to facilitate the progress of youth. Hence broths, and a large proportion of vegetables, are the most suitable nourishment. Milk also is a proper part of diet, and it should be used in every form during this stage of life. In point of drink, water is the best, and should be almost the only beverage. Seasoning of all kinds should be avoided, and nothing should be taken that can, by stimulating the system, induce a too early maturity, before the constitution is ripened for it by years.

On the diet of manhood. — With complete adolescence, the quantity of food necessary for the period of growth should be abridged; but from the active scenes of life in which the body is then engaged, the food should be of a more stimulating nature, and a proper proportion of animal food interposed. The proportion, however, must be regulated by circumstances; thus, those who pursue a sedentary and studious mode of life should be more sparing in the use of animal food, and stimulant drink; for by excess of nourishment to the body, the intellects are found proportionally weakened. Those of a firm and vigorous habit possess a strong disposition to inflammatory diseases. Excesses therefore should be particularly avoided by them, especially in the use of fermented drinks. Where the constitution is delicate and irritable, a diet moderately stimulating is most suitable, with a very spare use of fermented liquors. The sanguine should confine their diet chiefly to vegetable food, and their drink to water without any impregnation. The phlegmatic habit admits a greater latitude in the use of a stimulating diet than any other, and both seasoning and stimulating drink will prove less hurtful to such a constitution; the chief point is to guard against corpulency. Where a dry habit prevails, young meat, with fruits and fresh vegetables, forms the best regimen; and in point of drink, good wine, diluted with water, is preferable.

With respect to drink, at all periods of life, temperance is necessary. Strong liquors are indeed best suited to cold climates,

* For the diet of infancy, see Feeding of Children.

and here they are generally used to excess. In warm climates, though their temporary use may be called for at intervals, the practice should not be indulged. — (*See* INDIGESTION.)

OF THE DIET OF AGE. — The diet of age, or after fifty-five, should return somewhat to the early periods of life. The proportion of solid food should be lessened, and the diet recommended for youth adopted; thus broth and liquid food should mostly be used; and all nourishment taken of an easy digestion, with a moderate use of seasoning. The appetite is more languid, and the machine requires to be stimulated. Well-fermented liquors, especially wine, are also proper, for the system must be invigorated and supported, unless the subject be of a full habit, or disposed to apoplexy. — (*See* PREVENTION OF APOPLEXY. *See* THE GRAND CLIMACTERIC PERIOD OF LIFE.)

OF DIET DURING DISEASE. — If an attention to diet be necessary in health, it is certainly still more so under disease.

LOW OR FEVER DIET — May consist of panada; gruel, milk, thickened with arrow root; plain bread-pudding; arrow root; salep; tapioca jellies; rice milk; chicken or veal tea.

Drink. — Barley-water, acidulated with lemon or orange-whey; thin gruel; balm, or mint tea.

RESTORATIVE, OR CONVALESCENT DIET. — Rice or bread pudding; hartshorn, isinglass, or calves' feet jelly; shell fish; flounder and soles; veal; fowl, rabbit, and lamb.

Drink. — Fresh small beer; porter; Port or claret wine, with water; weak brandy and water.

GENEROUS OR FULL DIET. — Rice or bread pudding; strong beer; broth or gravy soup; shell-fish; rabbit, veal, lamb, mutton, beef, pork, &c.; jelly of hartshorn, calves' feet, or isinglass; meat soups; with vegetables.

Drink. — Brisk cider or perry; sherry, Port, or claret wine; rum or brandy diluted with water.

The properties of the various articles of diet are noticed under their respective heads, in the author's Dictionary of Domestic Medicine.

OF DRINK. — Drink is that supply of liquid which the body requires to repair its fluid parts; and the necessity for this supply, as well as its quantity, are both pointed out by a certain feeling which the want of it excites, named *thirst*. From the purpose that drink is naturally designed to serve, the liquid composing it should be of the simplest and most diluent kind. Hence water is the drink of all animals, and also of man in his natural state. But, along with refinement, this part of aliment, as well as food, has changed the simplicity of its nature; it has become impregnated with a variety of foreign matters, which stimulate and disorder the system; and thus, instead of answer-

ing the original intention of nature, as a pure elementary fluid, in allaying thirst; it is formed only to please the palate, and to create a desire for the enjoyment of it, beyond what either nature requires or reason approves. Drinking, or rather dilution, which is a term that more properly applies to this part of the subject, we find indispensably necessary to the support of animal life. The use of it, like that of food, requires certain regulations; and we are more apt to exceed in the proportion of drink than of food. There are many people, however, who are known never to drink at meals, the time when dilution is perhaps most necessary, and even rarely to do it on any other occasion: this is a practice by no means to be commended; but the other extreme, which is so common, should be equally avoided, on account of its weakening the digestive organs, and diluting the gastric juice. Drink, besides the supply of fluid to the system at large, in the first instance, materially promotes the solution of the food, and expedites its passage from the stomach, and its conversion into chyle; it then assists the union of this part with the other animal fluids already formed, and by giving fulness and tension, increases the activity of the general circulation. Thus, it promotes the formation of blood, and gives vigour and supply to the different secretions. How to employ or use drink properly is a subject of the first importance, and in our conduct respecting it, we must be directed by the several circumstances of the nature of our food, of the state of the season, and of our mode of life; while even the particular time also of using it, in regard to meals, as well as those restrictions specified, merit an equal share of attention. On the nature of our food, we may take notice that the drier it is, either from its quality or form, the greater proportion of drink it requires: animal food demands, of course, a greater quantity of drink than vegetable food. But in all cases the drink should exceed the proportion of food: this some authors have endeavoured to limit, by stating that the proportion of liquid should be double to the proportion of dry aliment. But this will never be accurately observed, for every individual will be much regulated by inclination and habit. One thing, however, is clear, that animal food requires a greater proportion of drink than vegetables, and that water during youth is the best beverage to conjoin with both, from its less disposition to produce acescency. The state of constitution determines a good deal our natural appetite for a large proportion of drink. Thus the phlegmatic habit has less inclination to drink than those of the sanguine and choleric temperament. Women, also, have less calls from thirst than the other sex; and youth, in the same manner, less than manhood or age. The influence of the season regulates likewise the appetite in a material degree: excessive heat calls for a large supply of liquid, by increasing the

evaporation from the surface of the body, and it suspends also, in some measure, the activity of the gastric secretion, as the desire for solid food becomes considerably diminished: thus the inhabitants of warm climates eat little in proportion to those of colder regions; but they require a constant supply of liquid, and their desire for this knows no bounds. On the other extreme, the natives of a cold country possess a keenness of appetite for solid food, which, unless very dry and compact, seldom excites much inclination for liquids. Hence, it is more from their pleasing the palate, than from their diluent nature, or from the real call of thirst, that much consumption of drinks in cold regions takes place. The way of life, the last circumstance taken notice of, must considerably affect the desire for drink, and that much in the same manner as the influence of the season. Thus the laborious, from their exertions, keep up an increased evaporation from the body, and require a much larger use of drink than the sedentary and inactive; and according, therefore, to the degree of exercise of the individual at different times, will the call for drink be greater, and the necessity also for an increased supply be proper. The suitable time for drinking, with respect to meals, is a part of the subject that next requires consideration. A desire for drink is generally one of the first calls we have in the morning, and this will be properly gratified with a glass of cold water, which will give a vigour and tone to the stomach, and prepare it for the approaching meal; it will also tend to remove any viscid phlegm which may be collected in it, and which may vitiate the appetite for the morning's repast: at first, however, the feeling communicated by this beverage will be disagreeable; but if continued for a few times it will prove a refreshing and agreeable relish. Drink before a meal has been objected to by some writers; this, however, like every general maxim, must be regulated by circumstances: if the stomach be strong and active, it will do no injury in lessening the appetite; if the stomach, on the contrary, be weak and relaxed, some indulgence of this kind may be proper in the way of cordial, to excite its languid action, and invigorate it for the approaching reception of food. The same objections have been applied to drinking at the time of meals, and, no doubt, it is intended by nature that the appetite for food should first be satisfied, before a supply of drink becomes necessary; at the same time, drinking cannot be avoided to a certain degree, and especially in warm weather, when the stomach is languid, and the nourishment taken is not sufficiently stimulating to keep up the process of digestion: a moderate portion of drink, therefore, may at all times be conjoined with our meals. But it should be chiefly with a view rather of nourishing than repressing appetite, and therefore ought to be of a stimulating nature, as a glass or two of wine;

and it should, also, be in such small quantities, as not to affect materially the distension of the stomach, or prevent the organ from receiving the proportion of nourishment it requires. Hence, liquors of an inferior degree, or a diluent nature, should be rather used to close the repast than to interrupt the meal. When drink is used at any intermediate time between meals, the propriety of joining it with some solid food has been inculcated by many authors. But thirst and hunger are two different sensations, and the supplying the former does not necessarily interfere with the latter: in certain cases, indeed, where an immoderate use of stimulant liquors is the consequence of a depraved mode of life, the bad effects of this practice may be somewhat lessened by such a plan of procedure. Drink, however, when left to choice, should only properly succeed a meal, and be called in to assist the progress of digestion: it should consist, therefore, chiefly of the most diluent kind, and should be taken only in small quantity, as the exertion of the stomach seems to require assistance. On the whole, from what has been pointed out, though drink is a necessary and essential part of aliment, it should never be carried too far, either in respect to its quality or proportion. Though not so hurtful as an excess of food, yet its immoderate indulgence weakens the stomach and bowels: instead of promoting it retards digestion, and, by an improper dilution, makes the food pass off too quickly. Hence the mass of blood is probably thinned by it, from wanting the due proportion and consistence of its parts; and in general, debility of the body ensues, distinguished by universal relaxation, and too copious a discharge of the different excretions. But, on the other hand, though it is rare, a rigid abstinence from drink is improper: by this error the solution of the food becomes incomplete, and digestion is too much impeded.

No article of diet is more injurious to health than tea when taken warm. It relaxes the stomach, its peculiar chemical property debilitates the nerves, and when the infusion is strong, its baneful effects are extended to the brain, and consequently to the whole nervous system. To the free use of tea and coffee, and vinous liquors, the general prevalence of indigestion and bilious complaints is more attributable than to any other article.

TEMPERANCE — Is the moderate use and enjoyment both of the necessaries and luxuries of life; but here it particularly relates to what we eat or drink. It is one of those virtues which, of all others, has its own reward, for health and length of life are most frequently its attendants. Man, however, is less than any other animal inclined to observe its rules; and instinct in the brute creation, which regulates their conduct, is found superior, in this respect, to the boasted reason of man. Temperance is especially

necessary in the case of every invalid, whose constitution is either habitually weak, or rendered so by previous disease. Temperance, in such situations, has often been known to work miracles, and to have protracted life without inconvenience, nay, even with comfort and pleasure, to a very advanced stage. Of this, the most remarkable instance is afforded in the celebrated Venetian, Carnaro. Another, and recent instance of the same kind, is offered in the celebrated Professor Black, of Edinburgh, who, though seized with a spitting of blood in an early period, by a proper attention to his mode of life, protracted it, with much utility to mankind, to a very advanced period.

But though example is ever superior to precept, in the present instance it will be best to accompany this article with a view of the effects of temperance and intemperance, on the conduct and constitution of mankind, as ingeniously presented at one view by Dr. Lettsom, in his *Moral Thermometer*, published in a small tract, entitled "*The bad Effects of a little Drop.*"

TEMPERANCE.

70—	WATER	Health, Wealth,
60—	Milk and Water	Serenity of Mind,
50—	Small Beer	Reputation, long Life, and Happiness.
40—	Cider and Perry	Cheerfulness.
30—	Wine	Strength, and
20—	Porter	Nourishment — when taken only
10—	Strong Beer	at Meals, and in moderate Quantities.

INTEMPERANCE.

		VICES.	DISEASES.	PUNISHMENTS.
10—	Punch	Idleness;	Sickness;	Debt;
20—	Toddy and Crank	Peevishness;	Puking; and Tremors of the Hands in the	
		Quarrelling;	Morning;	Black Eyes;
		Fighting;	Bloatedness; Inflamed Eyes;	Rags;
30—	Grog, and Brandy and Water.	Lying;	Red Nose and Face; Sore and Swelled Legs;	Hunger;
		Swearing;	Jaundice;	Hospital;
40—	Flip and Shrub	Obscenity;	Pains in the Limbs, and Burning in the Palms of the Hands and Soles of the Feet;	Poor-house;
50—	Bitters infused in Spirits ..... Usquebaugh	Swindling;		Jail;
	Hysteric Water	Perjury;	Dropsy; Epilepsy;	Whipping;
60—	Gin, Anniseed, Brandy, Rum, and Whiskey, in the *Morning*	Burglary;	Melancholy; Madness;	The Hulks;
		Murder;	Palsy;	Botany Bay;
70—	Do. during the *Day* and *Night*	SUICIDE.	Apoplexy; DEATH.	GALLOWS.

THE MEANS OF CURING THE HABIT OF DRUNKENNESS. — The following instructions for destroying this habit, or counteracting the predisposition to excessive drinking, appeared in the 142d number of the Gazette of Health, partly from Mr. Macnish, an eminent surgeon, and partly from myself.

To remove the habit of drunkenness from any one in whom it has been long established, is a task of great difficulty. We have not only to contend against the cravings of the body, but against those of the mind; and in struggling with both, we are in reality carrying on a combat with nature herself. The system no longer performs its functions in the usual manner; and to restore these functions to their previous tone of action, is more difficult than it would be to give them an action altogether the reverse of nature and of health.

The first step to be adopted is, of course, the discontinuance of all liquors or substances which have the power of intoxicating. The only question is, Should they be dropped at once, or by degrees? Dr. Trotter, in his Essay on Drunkenness, has entered into a long train of argument to prove that, in all cases, they ought to be given up *instanter*. He contends that, being in themselves injurious, their sudden discontinuance cannot possibly be attended with harm. But his reasonings on this point, though ingenious, are not conclusive. A dark unwholesome dungeon is a bad thing; but it has been remarked, that those who have been long confined to such a place have become sick if suddenly exposed to the light and pure air, on recovering their liberty. Had this been done by degrees, no evil effects would have ensued. A removal from an unhealthy climate (to which years had habituated a man) to a healthy one has sometimes been attended with similar consequences. Even old ulcers cannot always be quickly healed with safety. Inebriation becomes, as it were, a second nature, and is not to be rapidly changed with impunity, more than other natures. Spurzheim advances the same opinion. "Drunkards," says he, "cannot leave off their bad habits suddenly, without injuring their health." Dr. Darwin speaks in like terms of the injurious effects of too sudden a change; and for these, and other reasons about to be detailed, we are disposed, upon the whole, to coincide with them.

If we consider attentively the system of man, we shall be satisfied that it accommodates itself to various states of action. It will perform a healthy action of which there is only one state, or a diseased action, of which there are many. The former is uniform, and homogeneous. It may be raised or lowered according to the state of the circulation, but its nature is ever the same: when that changes — when it assumes new characters — it is no longer the action of health, but of disease. The latter may be

multiplied to infinity, and varies with a thousand circumstances; such as the organ which is affected, and the substance which is taken. Now, drunkenness, in the long run, is one of those diseased actions. The system no longer acts with its original purity: it is operated upon by a fictitious excitement, and, in the course of time, assumes a state quite foreign to its original constitution — an action which, however unhealthy, becomes ultimately, in some measure, natural. When we use opium for a long time we cannot immediately get rid of it, because it has given rise to a false action in the system — which latter would suffer a sudden disorder if deprived of its accustomed stimulus. Disease here triumphs over health, and has established so strong a hold upon the body, that it is dislodged with difficulty by its lawful possessor. When we wish to get rid of opium, or any other narcotic to which we are accustomed, we must do so by degrees, and let the healthy action gradually expel the diseased one. Place spirits or wine in the situation of opium, and the results will be the same. For these reasons, I am inclined to think that, in many cases at least, it would be improper and dangerous to remove intoxicating liquors all at once from the drunkard. Such a proceeding seems at variance with the established actions of the human body, and as injudicious as unphilosophical.

I do not, however, mean to say, that there are no cases in which it would be necessary to drop liquors all at once. When much bodily vigour remains, when the morning cravings for the bottle are not irresistible, nor the appetite altogether broken, the person should give over his bad habits instantly. This is a state of incipient drunkenness. He has not yet acquired the constitution of a confirmed sot, and the sooner he ceases the better. The immediate abandonment of drinking may also, in general, take place when there is any organic disease, such as enlarged liver, scirrhous stomach, colon, &c. Under these circumstances, the sacrifice is much less than at a previous period, as the frame has in a great measure, lost its power of withstanding liquors, and the relish for them is also considerably lessened. But even then the sudden deprivation of the accustomed stimulus has been known to produce dangerous exhaustion; and it has been found necessary to give it again, though in more moderate quantities. Those drunkards who have no particular disease, unless a tremor and loss of appetite be so denominated, require to be deprived of the bottle by degrees. Their system would be apt to fall into a state of torpor if it were suddenly taken away, and various mental diseases, such as melancholy and madness, might even be the result. With such persons, however, it must be acknowledged that there is very great difficulty in getting their potations diminished. Few have fortitude to submit to any reduction. There

is a gnawing desire left behind, infinitely more insatiable than the longings of a pregnant woman.

Drunkenness, in the long run, changes its character. The sensations of the confirmed tippler, when intoxicated, are nothing in point of pleasure, to those of the habitually temperate man in the same condition. We drink at first for the serenity which is diffused over the mind, and not from any positive love we bear to the liquor. But, in the course of time, the influence of the latter, in producing gay images, is deadened. It is then chiefly a mere animal fondness for drink which actuates us. We like the taste of it, as a child likes sweetmeats; and the stomach for a series of years has been so accustomed to an unnatural stimulus, that it cannot perform its functions properly without it. In such a case, it may readily be believed that liquor could not be suddenly removed with safety.

The habit will sometimes be checked by operating skilfully upon the mind. If the person has a feeling heart, much may be done by representing to him the state of misery into which he will plunge himself, his family, and his friends. Some men, by a strong effort, have given up liquors at once, in consequence of such representations.

Many men become drunkards from family broils. They find no comfort at home, and gladly seek for it out of doors. In such cases it will be almost impossible to break the habit. The domestic sympathies and affections, which oppose a barrier to dissipation, and wean away the mind from the bottle, have here no room to act. When the mother of a family becomes addicted to liquor, the case is very afflicting. Home, instead of being the seat of comfort and order, becomes a species of Pandemonium: the social circle is broken up, and all its happiness destroyed. In this case, there is no remedy but the removal of the drunkard. A feeling of perversity has been known to effect a cure among the fair sex. A man of Philadelphia, who was afflicted with a drunken wife, put a cask of rum in her way, in the charitable hope that she would drink herself to death. She suspected the scheme, and, from a mere principle of contradiction, abstained, in all time coming, from any sort of indulgence in the bottle.

Sometimes an attack of disease has the effect of sobering drunkards for the rest of their lives. We know many gentlemen who had apoplexy in consequence of dissipation. They fortunately recovered, but the danger which they had escaped made such an impression upon their minds, that they never tasted any liquor stronger than simple water. Many persons, after such changes, become remarkably lean; but this is not an unhealthy emaciation. Their mental powers also suffer a very material im-

provement, the intellect becoming more powerful, and the moral feelings more soft and refined.

Those who have been for many years in the habit of indulging largely in drink, and to whom it has become an *elixir vitæ* indispensable to their happiness, cannot be suddenly deprived of it. This should be done by slow degrees, and must be the result of conviction. If the quantity be forcibly diminished against the person's will, no good can be done; he will only seize the first opportunity to remunerate himself for what he has been deprived of, and proceed to greater excesses than before. If his mind can be brought by calm reflection to submit to the decrease, much may be accomplished in the way of reformation. Many difficulties, undoubtedly, attend this gradual progress, and no ordinary strength of mind is required for its completion. It is, however, less dangerous than the method recommended by Dr. Trotter, and ultimately much more effectual. Even although his plan were free from hazard, its effects are not likely to be lasting. The unnatural action, to which long intemperance had given rise, clings to the system with pertinacious adherence. The remembrance of liquor, like a delightful vision, still attaches itself to the drunkard's mind; and he longs, with insufferable ardour, to feel once more the ecstasies to which it gave birth. This is the consequence of a too rapid separation. Had the sympathies of nature been gradually operated upon, there would have been less violence, and the longings would have had a better chance of wearing insensibly away.

Women who indulge in liquors are very unqualified to act as nurses: their milk acquires heating and unhealthy qualities, which prove highly detrimental to the infant. If a nurse cannot afford the necessary supply of milk without such stimulants, she ought to be changed, and another substituted in her place.

It is impossible to give any directions with regard to the regimen of a reformed drunkard. This will depend upon different circumstances, such as age, constitution, predispositions, and manner of living. It may be laid down as a general rule, that it ought to be as little heating as possible. A milk or vegetable diet will commonly be preferable to every other. But there are cases in which food of a richer quality is requisite, as when there is much emaciation and debility. Here it may even be necessary to give a moderate quantity of wine. In gout, likewise, too great a change of living is not always salutary, more especially in advanced years, where there is weakness of the digestive organs, brought on by the disease. In old age, wine is often useful to sustain the system, more especially when sinking by the process of natural decay. The older a person is, the greater the inconvenience of abstaining all at once from liquors, and the more slowly

ought they to be taken away. A man who, for half a century, has drunk freely, cannot suddenly discontinue so long a habit without a certain degree of risk: the idea is opposed to all that we know of the bodily and mental functions.

It very often happens, after a long course of dissipation, that the stomach loses its tone, and rejects almost every thing that is swallowed. The remedy in this case is opium, which should be given in the solid form in preference to any other. Small quantities of negus are also beneficial; and the carbonate of ammonia, combined with some aromatic, is frequently attended with the best effects. Where there is much prostration of strength, wine should always be given. In such a case, the entire removal of the long accustomed stimulus would be attended with the worst effects. This must be done gradually.

Enervated drunkards will reap much benefit by removing to the country, if their usual residence is in town. The free air and exercise renovate their enfeebled frames; new scenes are presented to occupy their attention; and the mind being withdrawn from former scenes, the chain of past associations is broken in two.

Warm and cold bathing will occasionally be useful, according to circumstances. Bitters are not to be recommended, especially if employed under the medium of spirits. Where there is much debility, chalybeates will prove serviceable. A visit to places where there are mineral springs is of use, not only from the waters, but from the agreeable society to be met with at such quarters. The great art of breaking the habit consists in managing the drunkard with kindness and address. This management must, of course, be modified by the events which present themselves, and which will vary in different cases.

Persons residing in tropical climates ought, more than others, to avoid intoxicating liquors. It is too much the practice in the West Indies to allay thirst by copious draughts of rum punch. In the East Indies, both the natives and strangers, with greater propriety, principally use sherbet. In countries where the solar influence is felt with such force, we cannot be too temperate. The food should be chiefly vegetable, and the drink as unirritating as possible. It may be laid down as an axiom, that, in these regions, wine and ardent spirits are invariably hurtful; not only in immediately heating the body, but in exposing it to the influence of other diseases. A great portion of the deaths which occur among Europeans in the tropics are brought on by excess. Instead of suiting their regimen to the climate, they persist in the habits of their own country, without reflecting that what is comparatively harmless in one region is most destructive in another.

A long chapter might be written upon the nature and cure of

many diseases brought on by drunkenness; but Mr. Macnish has purposely declined saying any thing upon this subject, because these diseases do not exclusively own intemperance as their origin, and, even when they do arise from this source, require no peculiarity of treatment. Thus, an excessive use of strong liquors produces inflammation of the liver and dropsy, but both of these disorders may arise from many other causes. It is the same with mania, hysteria, inflammation of the stomach, and various others. "The only complaints," observes Mr. M., "of which I considered it necessary to detail the symptoms and cure, are the drunken apoplexy and delirium tremens; and I did so for no other reason but that they were produced by dissipation alone, and were treated in a peculiar manner. All the others are cured upon general principles; it being always understood, that the bad habit which brought them on must be dropped before any good can result from medicine."

If a man be resolved to continue a drunkard, it may here be proper, though somewhat out of place, to mention in what manner he can do so with least risk to himself. One of the principal rules to be observed, not only by him, but by habitually sober people, is never to take any inebriating liquid, especially spirits, upon an empty stomach. There is no habit more common or more destructive than this: it not only acts sooner than when food has been previously taken, but it has a much greater tendency to impair the functions of the digestive organs. In addition, drunkards should shun raw spirits, which more rapidly bring on disease in a viscus, than the same quantity used in a diluted state. The best form in which these fluids can be employed is cold punch. This, when well made, is always weak; and the acid with which it is impregnated has not only a bracing effect upon the stomach, but operates as a diuretic, thereby counteracting, in a considerable degree, the activity of the spirit itself. The next best form is that of grog; and warm toddy the third. The last, to be good, must be stronger than the two others; and the hot water with which it is made increases the naturally stimulating qualities of the active ingredient.

The malt-liquor drunkard, unless his taste be irrevocably fixed to the contrary, should, as a general rule, prefer porter to ale — at least to that variety denominated strong ale. Strong ale and purl are pernicious; but the lighter varieties, such as table-beer and home-brewed, when used in moderation, are not only harmless, but occasionally even useful.

As to the wine-bibber, no directions can be given. The varieties of wine are so numerous that any correct estimate of their respective powers is impossible; nor, though it were practicable, would it be proper within our narrow limits. It may,

however, be laid down as a maxim, that the wines which are most diuretic, and excite least head-ache and fever, are the safest for the constitution. The carbonate of soda, in the quantity of one drachm once or twice a day, in a glass of water, is the best corrective of the bad effects of wine with which I am acquainted.

If there be any thing farther to remark, it must be with regard to the use of mercury in enlarged liver. In ordinary cases, mercury is almost the only remedy for this affection; but where the disease is brought on by drunkenness, some practitioners entertain strong doubts of its efficacy, or even of its propriety. There can be little doubt that here the medicine is less effectual than in almost any other form of the disease; but still I am inclined to think that it will prove advantageous if given under proper circumstances. These circumstances are, when the person has given up his bad habits — when his stomach still retains some vigour—when he has no pectoral affection—and when his constitution, generally, is not much weakened. Perhaps the best mode of administering the medicine would be by rubbing in: the digestive organs are, for the most part, too much disordered to admit of its being taken in any other form.

A French physician states, that he has ascertained, that the dilute sulphuric acid, in the dose of ten drops in a quarter of a pint of water, three times a day, tends very greatly to diminish a propensity to drinking; and that in some cases he has found it to produce a disgust to the use even of a favourite liquor. To persons whose powers of reason and reflection have not been considerably impaired, the exhibition of the list of dreadful diseases it produces in the body, independent of its dreadful contaminating influence on the soul, one would suppose, would act immediately to turn him away with horror from his wickedness, "and do that which is lawful and right;" and thereby not only prolong his life, escape dreadful bodily torments, but, above all, "save his soul alive." Let him reflect during his sober hours, on the misery attendant on the last stages of diseased liver, diseased stomach, diseased brain, &c. Loss of vision or of hearing, a diminution of other senses, paralytic tremours, palpitation of the heart, dreams, gouty pains, emaciation, ulcers, and indigestions, should be received as "notices to his soul to quit its earthly abode;" and melancholy and dreaming should be a warning of the approach of that dreadful malady — insanity!!

OF CLEANLINESS. — Cleanliness consists in the removal of every impurity from the body, whether generated by itself, and attached to the substances surrounding it, or merely affecting it by accidental contact. The ablution of the different parts of the body, as the head, face, and mouth, also the hands and feet, is necessary at least once a day; but the propriety of washing the

whole surface of the body oftener than once a week, either with warm or cold water, is much to be questioned. The perspirable matter of the body is not, as was formerly supposed, an excrementitious secretion, but a very pure watery fluid, for the purpose of keeping up an evaporation for regulating the temperature of the body. — (*See* DIAPHORETICS, p. 23., EMETICS, p. 28., and WARM VAPOUR BATHS, p. 171.) Much mischief is often done by the exposure of the body during general ablution, and many lives are annually destroyed by the consequences. After the age of fifty, the warm bath once a fortnight is very beneficial to health, and an excellent preventive of organic disease of the stomach, liver, or intestines, which is apt to take place after that period of life. — (*See* THOMPSON'S VAPOUR BATH, p. 227. The mouth should be rinsed out after every meal, as the fibres of meat are apt to lodge about the teeth, and in consequence of the heat of the parts, rapidly putrify, and in this state it will act on the teeth and gums, so as to occasion caries and tooth-ache. The breath also, from the same cause, is apt to acquire a disagreeable taint. In cleaning the mouth, the tongue and throat should not be forgotten; the former should be done every morning with a piece of whale-bone; after it, the throat should be regularly gargled several times with fresh water. In cleaning the mouth the chief attention has been generally paid to the teeth, and for the removal of the tartar or crust, which is apt to form on them. Every day brings forth a new remedy, either as a preventive or cure of the tooth-ache, &c.; the treatment of the teeth, however, should consist simply of washing or rubbing them with the finger, and joining occasionally to it some substance of a mild nature, as the areca charcoal, to separate the tartar: all stronger applications are to be used with much caution, for in proportion as they produce cleanliness of surface, they injure the enamel and destroy its texture. Tooth-picks are injurious, as loosening the teeth, and producing a recession of the gum. — (*See* PREPARED ARECA CHARCOAL, p. 155.) Attention to the feet is no less necessary than to the parts we have noticed. Their discharge, acted upon by heat and friction, as in warm weather, and after much walking, produces the most noxious and disagreable smell. They should, therefore, be frequently bathed.

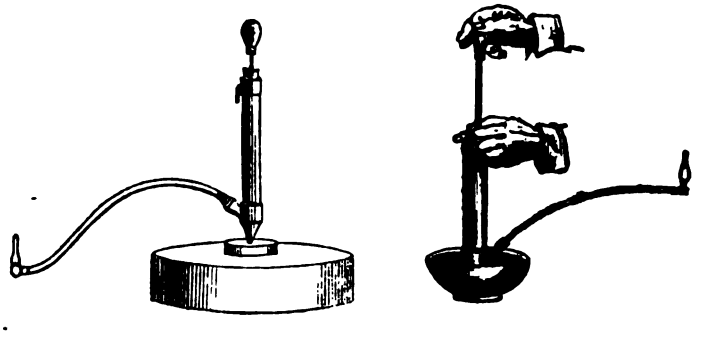
Where a habit of cleanliness is once established, no rules will be necessary, as the feelings of the individual will sufficiently point out to him what is proper in this respect. The frequency in the change of dress, the other part of cleanliness we noticed, must be entirely regulated by the materials worn, by the state of the season, and by the situation of the patient; no maxims, therefore, need be offered here, as every individual can easily judge for himself on this head. In the warm climates, an atten-

tion to it is carried so far, that people are in the habit of shifting twice a day: indeed, if articles of dress are once soiled, and next the skin, there is danger of absorption of their noxious matter, and their renewal, therefore, cannot be too speedy.

In cases of typhus or putrid fever, general ablution of the body with cold water or vinegar is certainly very beneficial, and most grateful to the feelings of the patient, and also a change of linen; but by washing the rooms of invalids, and often by changing the bedclothes, considerable injury is frequently done, particularly in cases of eruptive fevers, inflammatory affections of the head, throat, lungs or bowels, and rheumatism. The object of ablution is to remove offensive matter that may be absorbed from the surface of the body, or contaminate the air. The perspiration of the body is an inoffensive secretion; and the dirt of a floor may be as effectually removed by a hard brush without the aid of water as with it. In a hot climate, the use of water may, however, prove useful, by cooling the atmosphere of the chamber.

USEFUL APPARATUS EMPLOYED IN MEDICINE.

LAVEMENT MACHINE.—Of all the instruments that have been recommended for administering the important remedy termed a clyster or lavement, that lately invented by Mr. Read appears to be the best, particularly in cases of obstruction in the bowels, and for an invalid to employ without assistance. This ingenious contrivance possesses sufficient power for propelling the fluid into the intestinal canal. The following diagram represents the apparatus as applicable to self-injection. The left-hand figure shows the syringe screwed to the reservoir, which holds a pint, into which the liquid is put. In lieu of a reservoir, the liquid may be put into a basin or other vessel, as shown by the right-hand figure.



The patient being seated upon a chair, night commode, or any other convenient place, introduces the pipe into the bowel, and, by repeated strokes of the piston, pumps the injection into the intestines. In alluding to the remarks upon the efficacy of clysters contained in my treatise on Constipation, Mr. James Scott, a surgeon, of London, has published the following Observations: —

" To give, however, this desirable plan its proper efficacy, an instrument was wanted, not only adapted to domestic use, but which could meet all the exigencies of those severe cases of obstruction that often baffle medical skill, and terminate fatally. For the first purpose, it was necessary that the machine should be so constructed that an invalid should be able to use it *without assistance*: and for the second, that it should be capable of transmitting *any quantity* of fluid desired, with a power equal to the resistance it might experience.

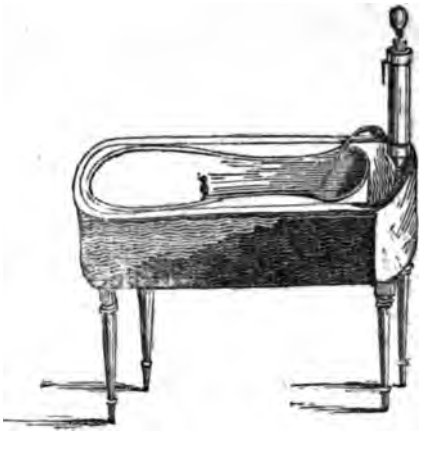
" This has lately been effected by the invention of a small syringe or pump, by an ingenious person, named Read, which is more suitable to this operation than any other instrument hitherto used. The cylinder of this syringe is not more than three quarters of an inch in diameter, and three inches and a half in length, and receives about an ounce of fluid, which is admitted at the extremity, and discharged through a small branch at the side attached to a long flexible tube that conveys it to the bowels. Notwithstanding the small size of this instrument, a large quantity of fluid may be injected in a very short space of time; in fact, it can be made to pass with a velocity not requisite in any case to which it may be applied, viz. at the rate of three quarts per minute. The French and other clyster syringes (containing a pint or more) are much too large to be either convenient or efficacious: in the first place, if there be any obstruction in the intestinal canal, or the bowels oppose the passage of the injection by any degree of reaction (which they usually do) the force necessary to propel so large a column of fluid requires the arm of a Sampson or a Hercules; and, secondly, the clumsy size of these instruments renders their use so awkward, that the patient is often much hurt by the attempts to effect the operation. Besides this, if a large quantity of fluid be necessary (as in cases of introsusception, obstinate constipation, &c. where several pints or even quarts are often thrown up) the operation is unavoidably suspended as often as the instrument requires to be recharged, and this, perhaps, several times successively. There are also serious objections to the canister apparatus, the fluid contents of which are forced into the bowels by the agency of condensed air. One of the evils of this instrument is, that part of the confined atmosphere rushes through the liquid injection, and passes

into the bowels along with it, occasioning, of course, mischievous and hazardous consequences; and again, the injection is forced out by the expansive action of the compressed air within the canister, and, consequently, the propulsive power *lessens* as the operation *proceeds*, which is directly the reverse of what ought to happen, for with an accumulating resistance and volume anteriorily, the *vis a tergo* ought to be, of course, proportionally increased.

" Not one of these objections applies to Read's syringe, the action of which is so easy, that it may be worked with a finger and thumb, whilst its power is so great, that all resistance yields to it without any increased effort."

When the syringe is used without a reservoir, the basin containing the liquid may be placed upon a chair opposite to the patient.

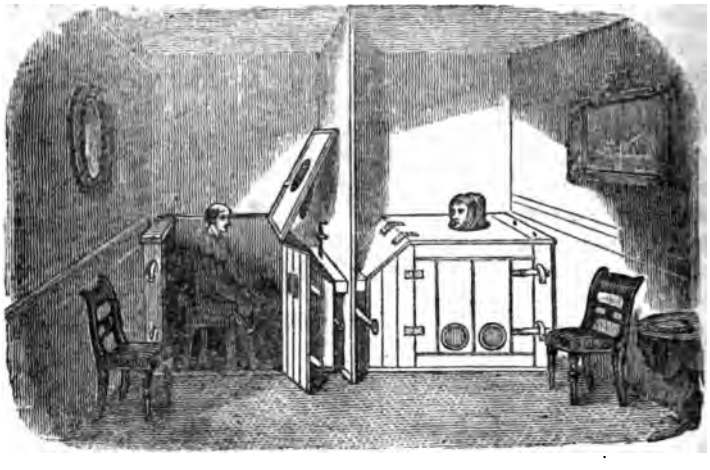
The above injecting apparatus is also sold combined with a bidet, which certainly adds much to the convenience of the operation. The basin for holding the liquid enema is formed at the front of the vessel, with a pipe descending into it, upon which the syringe is screwed. The syringe being fixed, requires but one hand of the patient to use it, and allows therefore of the other hand being employed, if necessary, to support and retain the pipe in the bowel.



This apparatus is also very useful for female injection, whether it be of medicated lotions or simply ablutions of water. *See* CLYSTERS and LAVEMENS, page 99.

WARM AIR, FUMIGATING, AND VAPOUR BATHS. — The importance of these auxiliaries to internal

medicine, &c., I have briefly noticed under the head of "Auxiliary Remedies," p. 169 to 173. Under the directions of Mr Green, of Great Marlborough Street, the warm air bath, the sulphureous fumigating, and the simple and medicated vapour baths have proved very beneficial in a great variety of cutaneous diseases and rheumatic affections. The 143d number of the Monthly Gazette of Health contains the particulars of a case of leprous affection of the skin, of many years' standing, which was effectually cured by sulphureous fumigation, under the care of Mr. Green, after the usual remedies, as mercury, arsenic, &c. had failed to produce any salutary effect. The following representation of Mr. Green's "fumigating bath" will exhibit the mode of employing it: —



The division on the left shows a patient about to take a bath, and that on the right represents a patient exposing the whole of the surface of the body, excepting the face, to the influence of any gas impregnated more or less with the matter of heat, sulphur, mercury, &c., which arise from beneath and surround the body. The arterial system and various functions of the body during this time are greatly excited; and particularly if there be any abrasion of the skin, as from the previous application of a blister, whatever medicine is made to arise in the gaseous form is readily absorbed, and the system becomes influenced, as though the medicine had been taken in the usual way by the mouth. This is unquestionably a great advantage, especially with those persons whose stomach and bowels are too weak to bear the action of the usual medicines. The patient being exposed to a temperature greater than that of the body for about twenty

minutes, will soon be convinced that the temporary impulse given to the animal functions, with due repetition and not continued too long, will go far to ameliorate, and, in many cases of simple ailment, to cure disease, and at all times to prove a powerful auxiliary to medicines. The sulphur and other gaseous baths are given in the dry state; but the simple vapour can be used, on account of being free from the objections which are made to the customary and careless way in which they are administered; for in the box baths the whole process is more convenient to the patient; the feet are kept the hottest, and the patient breathing the atmospheric air, there is no fear of an excessive determination of blood to the head; but in pulmonary cases, inhaling the vapour is frequently desirable when at the natural temperature of the body. The prevailing opinion that great care is necessary to prevent taking cold after the use of this bath is a vulgar error, because the body being surcharged with the matter of heat, it is impossible to take cold after it, unless by an imprudent exposure to wet, or a current of cold air.

The view given is representative of the improved mode of using this bath, as daily practised by Mr. Green, at his establishment in Great Marlborough Street, whose late publication, with cases illustrative of the benefit of various simple and medicated baths may be obtained of any respectable publisher.

STEAM INHALER.

The preceding is a representation of Read's Patent Steam Inhaler, which is free from an evil hitherto connected with machines for this purpose, viz. that of allowing the return of the breath from the lungs into the vessel, by which the patient continues to respire the same air over again. The above apparatus furnishes a constant current of fresh air impregnated with pure steam.

The great utility and efficacy of inhaling the vapour of hot water, and other medicated liquids, has also induced the patentee, for the convenience of persons possessing his lavement apparatus, to attach a breathing tube to the reservoir, by which the latter may at any time be used as a steam inhaler.

THE STOMACH PUMP.

The Operation of Injecting the Stomach.

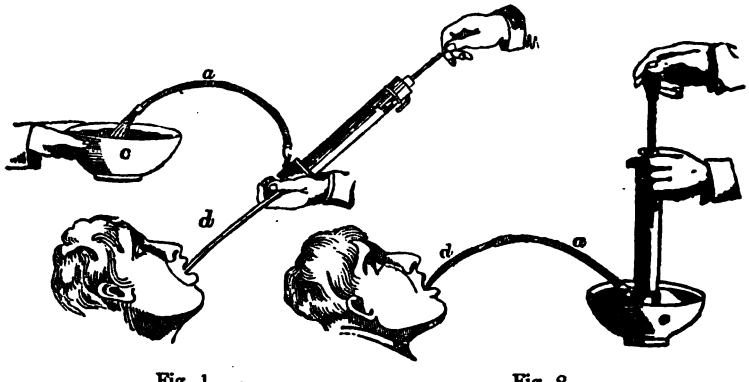


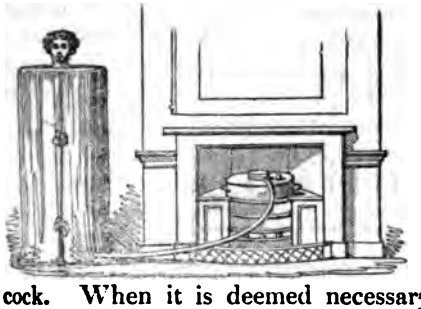
Fig. 1.
Withdrawing the contents of the stomach.
a. The flexible enema tube.
d. The œsophagus tube.

Fig. 2.
Injecting fluid into the stomach.
a. The flexible enema tube.
d. The œsophagus tube.

See TREATMENT OF POISONS, page 176. — SUSPENDED ANIMATION, 179. — And FIT OF INTOXICATION, page 181.

DOMESTIC VAPOUR BATH. — Of all the domestic apparatûs that have been invented as auxiliaries to medicine, that of the Vapour Bath affords the most efficacious preventive of inflammation of the lungs, liver, or intestines; and when either of these diseases has taken place, it is often more efficacious in checking its progress, and in producing a favourable termination, than internal medicine, and is unquestionably, in the majority of cases, necessary to secure the beneficial operation of internal remedies. On the first attack of rheumatism, gout, or catarrh, it generally succeeds in preventing a disturbance of the general health, and in speedily terminating the malady. In cases of spasms of the lungs or bowels, or retention of urine from a

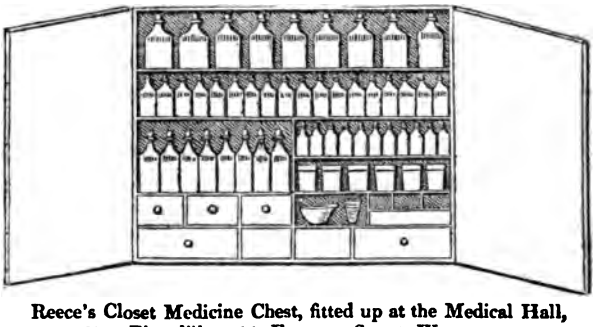
spasmodic or inflammatory affection of the sphincter muscle of the bladder, it affords a most valuable remedy. The most simple, efficacious, manageable, and cheap vapour bath is that lately invented by Mr. Thompson, the travelling equipage manufacturer, (116, Long Acre.) Of this useful invention, denominated the Domestic Vapour Bath, the following is a representation: —



The use of this apparatus is attended with no risk. The boiler is supplied with a safety-valve. The steam is conveyed by a tube into a receiver at the bottom of the ball, and the person inside has the power of regulating the degree of temperature by a stop-cock. When it is deemed necessary for the head to be subjected to the action of the vapour, or for the patient to inhale the vapour, as in cases of recent catarrh, irritation, or inflammatory excitement in the membranous lining of the windpipe, the upper portion of the case admits of being raised so as to receive the head. The vapour bath is exempt from the great objection to the warm water bath, *viz.* a pressure on the body, which is often so great on plethoric habits as to occasion congestion of the vessels of the brain. It has likewise the great advantage of being used without the least inconvenience in the bed-chamber of an invalid. In cases of chronic and acute affections of the skin, spasmodic or irritative asthma, and of chronic inflammation of the internal linings of the windpipe (catarrhal consumption), the vapour may be impregnated with the valuable medicinal properties of vegetables, or of tar, &c. — (*See* VAPOUR BATHS, p. 171.) — In the 9th volume of the Gazette of Health, I have described a vapour bath invented by Captain Jeckyll, and entered fully into the use of simple and medicated vapour in a variety of diseases, and particularly as a preventive of serious maladies, when taken on the first attack of cold. Mr. Thompson's invention is a great improvement on Captain Jeckyll's plan, and is at the same time considerably cheaper. I have lately pointed out some alterations, which I hope will enable Mr. Thompson to supply families with them at the low price of four guineas, or four guineas and a half. The apparatus, in a large family, not only affords the means of diminishing pain and of saving life, but will considerably reduce the expence of medicine, attendance of a nurse, &c. &c. I would say of the vapour bath with aperient medicine, the same as the ancients said of sage, " Cur moriatur homo cui salvia cressit in

horto?" Why does man die who has sage in his garden? — (*See* DIAPHORETICS, p. 23.)

THE CLOSET OR LIBRARY MEDICINE CHEST. — This case, of which the following is a representation, is made for the purpose of fixing to the wall of a library or nursery, on the cheapest plan.



Reece's Closet Medicine Chest, fitted up at the Medical Hall, 170, Piccadilly; 44, Foregate Street, Worcester; and 4, East Street, Brighton.

The shelves, drawers, and sides, are made of stained deal, and the doors of mahogany, with a lock, &c. Each bottle has a title expressive of its contents, and a numerical reference to the Dispensatory part of the Medical Guide.

On the uppermost shelf there are nine bottles for

Magnesia
Epsom Salt
Castor Oil
Tincture of Rhubarb
Opodeldoc
Huxham's Tincture of Bark
Tincture of Senna
Mindererus's Spirit
Peruvian Bark Powder.

On the second and part of the third shelf are twenty-six bottles for

Com. Spirit of Lavender
Paregoric Elixir
Spirit of Hartshorn
Spirit of Sal Volatile
Sweet Spirit of Nitre
Antimonial Wine
Tincture of Myrrh
Crystallized Acid of Lemon
Salt of Wormwood
Tincture of Ginger and Camomile
Dilute Sulphuric Acid
Sulphuric Æther
Tincture of Assafœtida
Volatile Tinct. of Guaiac Gum
Extract of Lead
Tincture of Musk Seed
Tinct. of Sulphate of Quinine
Cream of Tartar
Flowers of Sulphur
Rhubarb Powder
Jalap Powder
Gum Arabic
Nitre Powder
Camphor
Rectified Oil of Turpentine
Camphorated Spirit
Carbonate of Soda.

On a division of the third shelf are eleven bottles for

Ipecacuan Powder	Prepared Calomel
Essential Salt of Bark	Emetic Tartar
Salt of Steel	Basilic Powder
Compound Cretaceous Powder	Camph. Acetic Acid
Liquid Laudanum	Russian Smelling Salts
Essence of Peppermint	

On a shelf in the same division are six parts for

Spermaceti Ointment	Lenitive Electuary
Brown Cerate	Aperient Pills
Yellow Basilicon	Squill Pill.

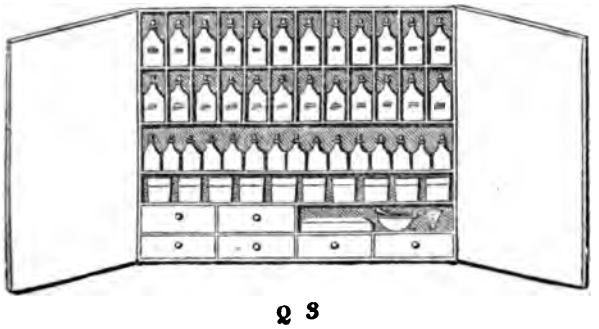
Seven drawers with divisions for

Bruised Peruvian Bark,	Court Plaster
Jamaica Ginger Powder	Lint
Senna Leaves	Gold Beaters' Skin
Flaky Manna	Leather
Nitre Powder	Bladder
Blistering Plaster	Lavement Bag and Pipe
Gum Plaster	Syringe
Adhesive Plaster	Probang.

A shelf for Pestle and Mortar — Graduated Ounce and Drop Measures — Scales and Weights — Spatula — Bolus Knives — Funnel, &c.

This Chest, independent of being considerably cheaper than those generally sold, has the great advantage of the titles of all the bottles being exposed to view on opening the doors, and of its being attached to the wall out of the reach of children. They are furnished with medicines of the best quality. There are four sizes. The case, bottles, and medicines are charged separately at the lowest price. The price of the smallest amounts to 4*l.* 3*s.*, and that of the largest to 8*l.*, at the Medical Hall, 170, Piccadilly; 44, Foregate Street, Worcester; and 4, East Street, Brighton.

THE LIBRARY CHEMICAL TEST CHEST.



PART II.

ON THE

TREATMENT OF DISEASES.

In the first part of this work I have noticed the classes of medicines, denominated according to their properties and under their respective names, in alphabetical order, not solely with the view of explaining the meaning of the technical terms, but for the more important purpose of acquainting my readers with the different manner in which they operate beneficially or otherwise in different diseases, so as to establish a scientific foundation for the employment of what are termed therapeutical agents, viz. articles of the department technically termed *therapeutics*; an important branch of the science of medicine, which embraces the operation of the agents used in the palliation and cure of diseases, as well as the modes of employing them. In that part I have particularly directed the attention of my readers to the necessity of attending to the stages of all diseases, and also the modification of numerous complaints by different temperaments, habits, and customs.

A disease becomes so changed or altered as it advances, by its effects on the constitution, and very frequently by disordering one organ more than another, as to require an opposite mode of treatment to that which is generally employed. When, therefore, a person solicits medicine in a case of a disease, enquiry should be made as to the length of time the complaint has existed, and the effects it has produced on the constitution or general health.

This is a point in practice which I wish to impress particularly on the minds of my readers, because I know it is a practice, even with some medical men, to give the medicines which are concatenated in their minds with the name of the disease. For instance, if a person applies for a medicine for hysteric fits,

to a healthy action of the stomach, and by accelerating its functions must evidently do harm. Cold water is the best promoter of digestion in youth and middle life, and wine is a cordial that should be only reserved for the weakened powers and incomplete digestion of age. The alcohol of wine appears also to enter the blood; for the air that is expelled from the lungs of a drunkard is impregnated with it. Such a combination must necessarily injure the brain, and sooner or later produce general or local mischief.

In the treatment of diseases, again, the age of the patient is a leading point to regulate the use of remedies. After the age of fifty-five, the heydey of life is past, the powers of the system begin to flag, and its former vigour to decay. Morbosity, or deranged structure, in consequence of imperfect nourishment, is apt to take place; as ossification of arteries, thickening of parts, &c. The nervous system is less excitable or susceptible of impressions than during middle age. The fulness of arteries, or plethora, which distinguishes youth, has passed to the venous system, where the blood is retarded, and accumulates in different parts. At the period when inflammation occurs, and where bleeding may be indispensable as a remedy, it will be necessary to attend with a guarded caution to the quantity and quality of the blood. The same attention must be extended in directing the use of every active medicine to counteract disease.

In diseases requiring the continued use of mercury, the stomach and system should be prepared for its exhibition; for if the stomach be disordered, and a morbid acidity prevail, purging or diarrhœa will be the consequence. Hence, in every chronic disease, before entering upon its cure, some preparatory treatment will be necessary to ensure the success of the means to be adopted.

OF THE INFLUENCE OF THE MIND. — The brain being the seat of the intellectual operations and of sensation, the mind and body reciprocally act on each other. The mind is only to be traced by its operations and effects, and that these may not be carried so far as to injure the body, we find this invisible principle possessed of a governing power, denominated reason. The influence of this principle on the body is often very great, some of its passions exciting, and others depressing, the vital energy of the system. If man be thus subject to the influence of the passions during health, how great must be their effects when the vigour of health no longer sustains his frame! It must appear obvious, that those who undertake the important office of visiting the sick, and prescribing for the cure of their maladies, should cultivate an acquaintance with the anatomy of the mind as well as that of the body.

Of the influence of the mind on the body, some further remarks are given in the articles on the hypochondriac passion, hysteric fits, mania, indigestion, ague, contagion, &c. &c.

OF THE PASSIONS OF THE MIND. — The passions may be considered as the gales of life, from whence proceed the "issues of good and evil." They are the source of every agreeable and of every painful feeling.

The passions may be divided into two kinds, namely, the exciting or enlivening, and the depressing. They operate on the body either suddenly, or in a slowly progressive manner. Death has been known to be the immediate effect of the former, while the latter generally diminish the vital powers. The choleric and sanguine constitutions suffer chiefly from the violent passions, and the phlegmatic and melancholic, whose sensations are dull, fall victims to those of an opposite kind. The long continuance of one passion, by irritating the brain, is apt to produce bodily disease, and frequently terminates in derangement. The cure of mental diseases has, at all times, formed the most difficult task for the physician, so much so as to render it proverbial. Thus, in the language of Shakspeare, "Who can minister to a mind diseased?" Change of objects, of impressions, and ideas, are the most powerful means of rousing the intellectual functions of the brain; for argument, in general, has but little sway. The early management of the mind, by a proper education, is the best guard against the mischievous effects of the passions at an after-period. Their control becomes then a habit with the individual, and prevents any excesses which might otherwise spring from their occasional excitement by unforeseen circumstances. Hence it may be laid down as a leading maxim, that the control of our passions is an indispensable requisite to the proper enjoyment of health. But, in order to point out the effects of the passions more clearly, it will be necessary to consider each of them separately. The first of the passions, and one we naturally wish to begin with, is

JOY. — This is a state of mind in which there is felt extraordinary pleasure, and in which a high degree of animation takes place. The heart is expanded; the circulation rendered free and vigorous; the eyes sparkle; and the mind becomes complaisant and mild. Hence this state is favourable to the enjoyment and recovery of health, where the body is languishing under general debility or nervous depression. Of this passion a variety of modifications or degrees occur, under the names of gaiety, cheerfulness, mirth, &c. &c.

The state of mind produced by this passion may be much favoured by a proper attention to the state of the evacuations,

and also to the regulation of diet. The evacuation by the skin is, in particular, of the first consequence, and the diet should be of easy digestion, of an aperient quality, and a considerable proportion of a vegetable nature. Hence a warm air has a great influence in producing the state of mind favourable to this passion; and by the circulation being promoted by this benign disposition, a tendency to obstruction is prevented. Excessive joy, however, is often attended with severe evils; instantaneous death has occurred from the immediate and rapid tumult produced on the spirits by its unexpected occurrence. Wherever, therefore, it is carried so far, though even in less degree, as to occasion sleepless nights, and great evacuations by the skin, which it is apt to do; then it is necessary to moderate this extreme passion, as more dangerous than even grief, which excites the very opposite sensations. It is better to prepare the mind gradually to meet the emotions of this passion, by which the effects will be lessened and regulated.

Laughter may be considered as a mode of expressing this passion, and, when kept within moderate bounds, is highly useful "Laugh and grow fat," though a vulgar proverb, is a proof of its utility, and of common belief on this point. It promotes the circulation of blood through the lungs, the energy of the nervous system is increased, and hence laughter has proved the means of relieving pains of the stomach, colic, and many chronic maladies connected with obstruction, or nervous debility. The bursting of abscesses, in critical situations, has often been hastened by it.

HOPE — is a modification of joy, or rather, joy by anticipation. It is real joy without alloy, which often happens when the actual event or good which gives rise to it arrives. Hope then, is the most pleasing state the mind can be in, and is highly favourable to health. It tells always, in the language of the poet, "a flattering tale," and paints the image, not as it is, but as it ought to be. Its beneficial influence on the body has been evinced in numberless instances, where it has produced a serenity of thought, and tended to prolong existence even in the most forlorn situations. It may be said to be that passion, or affection of the mind, which is the latest to leave us, and which continues to linger with us till the extinction of the vital spark on this side of the grave, and to point out, even before this event is completed, the scene that is expected beyond it. Hence it conveys, more than any other of our passions, an idea of

> The divinity that stirs within us,
> And points out immortality to man.

Hail, thou first, best feeling of our nature! Mayest thou never in this scene of vicissitude, forsake us!

OF LOVE. — This is the strongest of all the passions that affect our nature, and less under the control of reason than any other: and this we must admit is wisely ordained, when we consider that it is intended as the principle on which the continuance of the species depends. This passion generally affects the mind by degrees; but it is, at the same time, when once rooted, more fixed than any other; and hence the caution that ought to be observed in not giving way to it at an early period, when it is under the restraint of the will. Hence the just advice of the poet: —

——— " With caution and reserve
Indulge the sweet destroyer of repose,
Nor court too much the queen of charming cares;
For, while the cherish'd poison in your breast
Ferments and maddens, sick with jealousy,
Absence, distrust, or ev'n with anxious joy,
The wholesome appetites and pow'rs of life
Dissolve in languor: the coy stomach loathes
The genial board, your cheerful days are gone;
The gen'rous bloom that flush'd your cheeks is fled:
To sighs devoted and to tender pains,
Pensive you sit, or solitary stray,
And waste your youth in musing. Musing first
Toy'd into care your unsuspecting heart;
It found a liking there, a sportful love,
Which musing daily strengthens and improves
Through all the heights of fondness and romance;
And you 're undone, the fatal shaft has sped,
If once you doubt whether you love or no.
The body wastes away; th' infected mind,
Dissolv'd in female tenderness, forgets
Each manly virtue, and grows dead to fame."

But while we thus caution against giving way to this passion in an ungovernable degree, it is not to be denied, at the same time, that the best effects are known to follow its reasonable indulgence. An attachment to a beloved object has been known to cure the most obstinate disorders, which resisted every other remedy; and it has produced a total change on the powers and disposition of the mind, often for the best purposes, by giving it an ardour and heroism to vanquish every obstacle that may present itself to its desires. It is when this passion is under the necessity of being concealed, and where there is no hope of enjoyment, as in many cases in the female sex, that it proves so detrimental to health, and preys with a secret uneasiness on the mind; such as is so beautifully described by Shakspeare, when he says, —

" She never told her love,
But let concealment, like a worm i' the bud,
Feed on her damask cheek: she pined in thought,
And, with a green and yellow melancholy,
She sat like Patience on a monument,
Smiling at Grief."

When long continued, it constitutes grief; when diversified by alternate agonising sensations between hope and despondence, it is named distraction; and when overwhelmed with disappointment, it is properly despair. This passion, in its general feeling and effect, may be styled the slow poison that corrodes the mind, and, in the language of Scripture, "the worm that gnaws within." The body becomes gradually enfeebled by its suffering, the circulation rendered slower, occasioning obstruction of some of the viscera. The digestive organs no longer perform their functions properly; the nervous system is rendered irritable; the temper peevish; and the mind occupied solely with its own ungrateful feelings, the unhappy individual falls a prey to melancholy, and in time, in common language, dies of a broken heart.

Indolence and solitude are ever the supporters and nourishers of grief. Occupation and society are, therefore, its chief remedies. In this point, music will form an useful lenitive. According to the poet,

> "There is a charm, a power that sways the breast,
> Bids every passion revel or be still,
> Inspires with rage, or all your cares dissolves;
> Can soothe distraction, and almost despair."

That power is music. — Perspiration should be promoted by the warm vapour bath; and a dry, warm, or temperate climate should be the situation chosen for a residence. Weeping is generally the termination of a violent paroxysm of grief, and should be considered as giving relief, and as an useful palliative remedy.

The next passion that claims our attention, and the most fatal of the whole, when carried to an extravagant degree, is

ANGER, — which has accordingly been termed a short-lived madness, and frequently proves fatal, by occasioning such a determination of blood to the head as to occasion apoplexy. This effect of anger is thus beautifully described by Armstrong: —

> "But there's a passion, whose tempestuous sway
> Tears up each virtue planted in the heart,
> And shakes to ruin proud philosophy:
> For pale and trembling Anger rushes in
> With falt'ring speech, and eyes that wildly stare,
> Fierce as the tiger, madder than the seas,
> Desp'rate, and arm'd with more than human strength.
> But he whom anger stings, drops, if he dies,
> At once, and rushes apoplectic down;
> Or a fierce fever hurries him to hell."

Anger, therefore, according to its degree, induces different spasmodic and convulsive symptoms. Irritability of disposition evidently disposes to this passion, and particularly the hysterical and hypochondriac temperaments, as well as those of dry and rigid constitutions. In the former of these cases, when the pas-

sion is moderate, it is frequently beneficial, by increasing the circulation when sluggish; but in the latter constitutions its attack is always dangerous, and every act should be avoided that might tend to produce it. For such persons a mild diluent diet is most proper.

All stimulating food should be avoided, and an indulgence of sleep allowed. A fit of anger should be treated as an inflammatory disease.

FEAR — is a passion in its effects something similar to grief, for it weakens the powers of body and mind in various degrees, according to its different stages. It has been known to produce lunacy, and in its highest fit of terror to prove even fatal. Bashfulness, anxiety, and terror, are all different modifications of it. It particularly favours the attack, and increases the malignity of epidemical diseases; and, by producing a weakened circulation of the surface, gives rise to various cutaneous affections, and other ills, as palsy, loss of speech, epilepsy, &c. The treatment under violent degrees of it should be the same as that suited to spasmodic maladies, by first removing the spasm produced, and then promoting the different evacuations that may be interrupted.

A very interesting view of the passions is exhibited in the Holy Writ. That penitent passion of conscious guilt, SHAME, follows the awful interrogation of the first man; "*Adam, where art thou?*" *Dissimulation*, a passion unworthy a liberal mind, the result of *fear* combined with *guilt*, is immediately prominent in the assumed exculpation, "*She gave me of the tree, and I did eat.*" The sacred historian pourtrays the dreadful impetuosity of anger in the first-born human being, who affords an example of wrath of the most implacable nature; — the wrath of one brother persecuting another unto murder, preceded by all the grovelling suspicions of superior merit, expressed in a *sullen* or a *fallen countenance*; and avenged by supreme Justice, in an appeal to the heart, which almost chills the blood: "*What hast thou done? The voice of thy brother's blood crieth unto me from the ground.*"

In the under-plot of *sinister* passions, we see in a wife and parent the influence of *prejudice*, *insinuation*, and *treachery*; still further degenerating into *avarice*, in the character of one son; and pathetically contrasted in the generosity of an injured brother, and after the emotion of *anger* had subsided, "*who ran to meet him and embrace him, fell on his neck and kissed him, and they wept.*" This picture, for strength of colouring, for the chaste union of strong and tender passions, is not perhaps exceeded by any on record.

The lesser passions of *envy*, *jealousy*, *disappointment*, *fretting*, &c., may be all considered as modifications of the more important

ones above detailed. The general treatment of all mental disorders may be comprised under the following heads: —

1st. To remove, as far as possible, the cause of the passion, whenever passion is predominant.

2d. To inspire, according to circumstances, an opposite passion, as a means of cure.

3d. To present to the mind a variety of scenes and objects of a different nature from that of the prevailing passion.

4th. To affect the feelings by the power of music.

5th. To attend to the state of the skin and bowels. And,

6th. To observe a guarded regimen during the prevalence of any passion, in food, drink, and medicine.

OF DIFFERENT TEMPERATURES AND CONSTITUTIONS. — The subject of the various temperaments of body, in a practical point of view, is of such great importance, that it behoves every person to have some knowledge of his temperament, not only for the purpose of preserving health or curing disease by medicine, diet, dress, exercise, &c. but to be able to acquaint his medical adviser with it, as well as the peculiarities of his body.

The records of medicine clearly shew, that the ancient physicians of Greece were aware of the importance of paying attention to the constitution or temperament of their patients, in the treatment and prevention of disease. Hippocrates notices the different temperaments dependent on the proportion or conditions of the fluids of the body, which he supposed to be confined to four: viz. the blood, the yellow bile, the black bile, and phlegm.

When the blood is in excess, the temperament or constitution is termed *sanguineous*. When the yellow bile prevails, *choleric*; when the black bile, *atrabilious* or *melancholic*; and when phlegm, *phlegmatic*. The observant Boerhaave describes eight temperaments, which he denominates the *warm*, the *cold*, the *dry*, the *moist*, the *bilious*, the *sanguineous*, the *phlegmatic*, and the *melancholic*.

The WARM TEMPERAMENT he thus defines: — "A profusion of thick yellow hair, a florid complexion, red eyes, a thin, active, robust body, a full quick pulse, an irascible temper (soon appeased). The brain and the viscera of the chest, belly, and pelvis, he says, are strong and healthy, the vessels tense, and the fluid dense. He accordingly recommends a mild diluent diet as the best preservative of health in persons of a *warm temperament*.

The COLD TEMPERAMENT he distinguishes by a "smoothness of the skin, thin hair, pale complexion, cold, weak, languid habit, small slow pulse, and a cautious timorous mind. In this temperament, considering the solids to be lax, and the fluids thin or

watery, he recommends a warm strengthening diet, as the best means of preserving health.

The DRY TEMPERAMENT Boerhaave describes as similar to the warm, the body being small, and the vessels contracted.

The MOIST TEMPERAMENT differs from the dry only in bulk, the cellular membrane being well loaded with fat.

The BILIOUS TEMPERAMENT is characterised by a profusion of black curly hair, a hard, lean, slender body, a brown complexion, large veins, a full, quick, strong pulse, obstinacy, and violence of temper. In this temperament, the excess is more in the solids than any fluid of the body, and is in many respects similar to the warm and dry. In the present time, these characteristics of the bilious temperament are disregarded, physicians in general attributing nearly all the diseases that assail human nature to the influence of bile, differing in opinion more as to its quantity than quality; some founding their theories on a deficient, and others on an excessive secretion of it; and as to invalids, ninety-nine of every hundred, whether their hair be black, grey, light, curly, or otherwise; whether the veins be large or small; the body lean, slender, corpulent, hard, or soft; their tempers be mild or violent, they consider their constitutions to be bilious; and whatever the nature of their disease may be, they obstinately persist in ascribing it to bilious influence!!

The SANGUINEOUS TEMPERAMENT is distinguished, according to Boerhaave, by auburn hair, soft flesh, a full habit, blue distended veins, a florid complexion, and a passionate temper (readily yielding). To preserve such a constitution from the inflammatory diseases to which this constitution is predisposed, Boerhaave recommends a temperate diet, exercise, and the occasional use of an active aperient medicine.

The PHLEGMATIC TEMPERAMENT is distinguished by a very smooth fair skin, white thin hair, (growing sparingly) a soft plump body, and very small veins. It approximates very nearly to the cold temperament, and therefore Boerhaave recommends a generous warm diet, and occasional use of a cordial stomachic, to keep off the diseases to which it is predisposed.

The MELANCHOLIC TEMPERAMENT is characterised by smoothness of the skin, black hair, emaciation and dryness, dark complexion, languor, perseverance, resentful disposition, and a penetrating mind. The blood-vessels he represents to be firm, strong, and small, the fluids thick and tenacious. In this temperament he condemns the use of warm, dry, or acrid food, and recommends a cooling, relaxant, and emollient diet, as the best means of preserving the health of the body, and preventing mania.

Such are Boerhaave's descriptions of the different constitutions or temperaments of the human body, which, considering his attachment to his favourite system, founded on the hypothesis of the depravity of the humours (the humeral pathology) is highly creditable to him, for they clearly show that he paid particular attention to the different constitutions of his patients, and of course regulated his treatment of their maladies accordingly. Some modern writers have divided the temperaments into the *sanguine*, when the habit is full of good blood; the *serous* or *phlegmatic*, when the proportion of serum is too great; the *temperate*, when the blood-vessels are not overloaded, and the serum not in excess; the *cacochymic*, when the juices of the body are depraved; and the *nervous* or *irritable*, when the nervous system is too susceptible, or the subject disposed to nervous disturbances or excitement.

In the course of my practice, I have noticed five temperaments or constitutions which have evidently a modifying influence on all diseases, and particularly those of an *acute* nature.

The PLETHORIC or SANGUINEOUS, when the sanguiferous system is overloaded with good blood, disposing the subject to inflammatory affections, apoplexy, &c.

LEUCOPHLEGMATIC or VERMINOUS, when the system of blood-vessels is in an opposite state to the plethoric; the serum of blood being in excess, the muscular system relaxed, and the cellular membrane loaded with serum, occasioning swelling of the legs. This constitution is disposed to worms, gleety secretions from the vagina or urethra, cancer, rickets, &c.

ERYSIPELATOUS, when the body is disposed to the peculiar inflammation termed erysipelous, either from a preternatural saline state of the blood, or some peculiar excitable condition of the nervous system. In this temperament, inflammation runs unusually high, and slight accidents are productive of considerable mischief, often in elderly subjects terminating in mortification.

NERVOUS, when the nervous system is preternaturally sensible, favouring irritative, inflammatory, and spasmodic diseases, sometimes affecting the mind so as to produce the disease termed hypochondriacism, and the peculiarities of stomach, &c. termed *Idiosyncrasy*.

SCROFULOUS, when the lymphatic system is disposed to the diseased action termed scrofula, or struma, in which inflammatory and other diseases generally prove obstinate, by partaking of scrofulous action.

RHEUMATIC, which, on certain changes in the atmosphere, is affected with rheumatism, with which inflammatory and other diseases, by becoming complicated, prove obstinate, and in the treatment of which it is necessary to correct the habit.

ARTHRITIC, or GOUTY, in which common inflammation advances with unusual rapidity, and proves very irritative, giving way more to certain peculiar anodynes than abstraction of blood, and in which diseases of debility prove very obstinate, or often terminate fatally. — (*See* SEDATIVES, p. 41.)

MELANCHOLIC, when the patient is disposed to melancholy or mania, and in which many diseases prove intractable.

Some practitioners assert that such distinctions are productive of no practical utility, because the nature of the malady, and not the constitution of the patient, must determine the treatment of every disease. This opinion is peculiar to a class of practitioners too numerous in this country, who are blind followers of their teachers, whose minds are, in fact, too narrow to divest themselves of prejudice, and too shallow to collect facts; and if by chance any occurrence should particularly excite their attention, too weak for observation or reflection that is likely to prove useful to their patients.

Some lecturers treat the doctrines of temperaments, from certain supposed morbid conditions of the fluids, with great contempt, because they imagine the idea of vitiated fluids is without the smallest foundation. The late Dr. Fordyce condemned the doctrine as erroneous; but he admitted that appearances often favoured them, and allowed that, in certain persons born, bred up, and living in all the circumstances of others of the same community, certain temperaments do exist; and this opinion, I think, no practitioner of experience will deny. With respect to the idea that diseases are often dependant on, or aggravated by, a morbid condition of the fluids of the body (on which the humeral pathology is founded), I am satisfied much useful practical knowledge may be collected from this system, as well as from others, for all afford some useful information; and, instead of abandoning these systems entirely, the man who is anxious to exercise his art for the benefit of his fellow-creatures afflicted with disease, will endeavour to separate the substance from the froth, — the practical facts from the flights of fancy. Mr. Abernethy is of opinion the fluids of the body are often vitiated by absorption of imperfectly-digested food. He says, part of the food (which has not been perfectly digested) is imbibed from the bowels, and renders the *blood impure*, and (in his opinion) there being no outlet for such impurities but through the kidneys, they are a cause of foul urine, and for the presence of many substances in that fluid. Whoever considers the processes of nutrition of the body by deposition and the conveyance of unhealthy or old parts of the body, by the absorbents, to the mass of blood, must be convinced that the blood will become impure, when the organs for separating such impurities from the mass of

blood do not perform their offices. I might, therefore, with great propriety, have noticed the temperament of the body termed *cacochymic*, signifying, according to the humeral pathology, a vitiated state of the fluids, especially of the mass of blood. Old as this doctrine is, it really appears to me to be the *basis* of the chylopoietic or blue pill system of Mr. Abernethy.

Objections may be made to some of the temperaments of the body I have noticed, particularly the gouty, the rheumatic, the scrofulous, &c., because they are dependant on *morbid* conditions; but this is not the case: for I speak only of such constitutions as are *disposed* to the diseases, and by which disposition many maladies, and even inflammation attendant on accidents, are aggravated. Many may object to them, because even three or four sometimes occur in the same person, as the plethoric, the erysipelatous, scrofulous, and the gouty; but this fact, in my opinion, forcibly points out the necessity of keeping all of them in view in the treatment of any malady, either local or general. Whatever objections *theorists* may start against the temperaments I have noticed, I have no doubt *practitioners*, whose experience has enabled them to collect practical information, will be satisfied of the importance of a proper knowledge of them in the *practice* of medicine; and the physicians who do not attend to the temperament or temperaments of his patients, is only fit to talk Greek or Latin to amuse lunatics or maniacs by a variety of sounds. He is, in fact, a mere *stage* doctor, who attends more to the effect of a false shew of learning, than the effect of remedies. To practitioners aware of the importance of attending to the temperaments of their patients, the absurdity of laying down rules for prescribing scientifically, and of recommending a particular treatment for any disease, as by lecturers and authors of works on the "Practice of Physic," without any regard to the stage of the complaint, or the temperament or peculiarity that may prevail, must appear obvious; and certain I am, that from inattention to these circumstances many valuable remedies have fallen into disrepute. These temperaments I have particularly described in a work I have published under the title "A Practical Treatise on the Means of regulating the Stomach and Bowels by means of Medicine, Diet, Exercise, &c. habitual and other varieties of Constipation, &c. &c., and for correcting the scrofulous, gouty, rheumatic, erysipelatous, lymphlegmatic, nervous, and melancholic temperaments, and securing the system against the inroads of the grand climacteric disease, or breaking up of the constitution." It was my intention on commencing this article to have condensed the chapters on the different temperaments, so as to have introduced them into this work; but I found my limits would not admit of

it, without leaving out what I consider to be useful matter; but as the sympathies and peculiarities (idiosyncrasies *) of the body are chiefly, if not entirely, dependant on the nervous temperament, I shall give the substance of the chapter on it.

Singularities or peculiarities of the constitution, which so frequently occur in practice, technically termed *idiosyncrasy*, appear to be dependant on the nervous system. So general and common is peculiarity of constitution, that almost every individual has, in some degree, a state of health peculiar to himself, independent of the morbid temperaments; as the sanguineous, the leucophlegmatic, the erysipelatous, the nervous, &c. &c. On some persons, a mild application to the skin will produce considerable inflammation, and this effect is sometimes occasioned by a simple ointment of bees-wax; and it is not uncommon for a mild article of diet, as veal, &c. to disorder the bowels. I lately met with a nervous patient, who was in the habit of taking two grains of opium (an article which is commonly administered to check diarrhœa, and which almost uniformly constipates the bowels) to act as an aperient; and he always found it operate as effectually and much more pleasantly than any of the class of opening medicines.

It is, therefore, incumbent on patients to acquaint their medical attendants with the peculiarities of their constitutions, and the duty of physicians not only to attend to such statements, but to obtain a thorough knowledge of them. The fashionable physicians, who generally estimate the *success* of their practice by the number of their fees, will not spare time to listen to the narratives of their patients. Their duty (to *themselves*) is confined to a short ceremony of making an imposing exhibition of a watch and its ornamental appendages (a chain and seals), looking at the tongue, and writing a prescription, to entitle them to the fee; and in receiving it, their object is attained. A certain system-monger, celebrated for eccentricity, thinks it waste of time to attend to any such "*irrelevant* nonsense;" for, let the complaint be chronic or acute, primary or symptomatic, and the peculiarities of the constitution ever so singular, they must give way to the blue pill and an aperient draught; and, although the peculiarities are not diseases, but dependant on original organization, even they must give way to his *blue pill* system. Peculiarity of constitution has been noticed as an objection to domestic medicine; but, so far from this being the case, we really think it operates in its favour; for, surely, the invalid, who is acquainted with his peculiarities,

* When the stomach, or any other part of the body, or the whole system, is affected by an article, either medicinal or dietetic, which it does not in one person of five hundred, it is attributed to idiosyncrasy.

must be as competent, if not more so, to the treatment of his own complaint, as the physician who does not take the trouble to become acquainted with them. All diseases are more or less modified by peculiarities, and, in some constitutions, a disease often requires an opposite treatment to that which is proper in another person; and the power of ascertaining the cause of such modifications is not to be acquired at any school, or even by extensive practice, but by knowledge obtained from the patients themselves. It was the practice of the late Dr. Campbell of Hereford, and the late Dr. Reynolds of London, always to keep in view the nervous system in the treatment of all maladies; and the most experienced practitioners are aware, that, in the treatment of diseases, there is more to combat in the constitution from nervous excitement or peculiarity than in the disease itself.

THE SYMPATHIES existing between the different parts of the living body, not depending on proximity, have engaged the attention of ancient and modern physiologists; and to the physician and metaphysician these phenomena afford an extensive field for research and reflection. Sympathies, contiguous and remote, are like the peculiarities of constitution, greatly dependant on the nervous system, and are no doubt much influenced by singularity and habits. Although the brain is the seat of sensation, the sympathy between it and the stomach is so immediate or direct, and that between the stomach and the other viscera so considerable, that the stomach may be considered the centre of sympathy. Mr. Abernethy, who attributes all local diseases to a disordered state of the liver, stomach, and duodenum, admits, what indeed no surgeon of experience and observation will deny, that the stomach is often sympathetically affected. "When," says he, "I find that irritation of the *nervous system, however it may originate*, deranges the chylopoietic organs, and affects the stomach, bowels, and liver, apparently at the same time, I think it fair to infer, that these organs are equally operated on by the *same* cause. Disorder of the brain," he observes, "*may* affect the chylopoietic organs; and it is well known that this influence is reciprocal. The stomach is said to be chiefly concerned in producing these effects; but the cause of the sympathetic affection is probably more general. A fit of passion has produced jaundice, and the irritation of teething in children frequently suspends the secretion of bile, so that the stools are not in the least degree tinged with the fluid. If the brain can thus affect the liver, it is reasonable to infer, that the liver may reciprocally affect the head. It is very difficult to form an opinion relative to this subject; for, in the instances which have been mentioned, the affection of the liver may take place, *only because it forms a part of the digestive organs, and not from a* DIRECT *sympathy existing between it and the brain.*

Still, however," says Mr. A., "I do not think it unreasonable to conclude, that irritation of the other chylopoietic organs may, as well as that of the stomach, disorder the source of sensation." Such is the sympathy existing between the brain and stomach, that a disgusting object will often excite vomiting, and even some operations of the mind itself seem to act directly on that organ The seat of grief appears to be the stomach; and the distressing feelings of the hypochondriac being generally referred to the region of this viscus, we have often been disposed to attribute the latter to some disordered or diseased state of the ganglions in its neighbourhood, the use of which is probably to keep up a nervous energy between the brain and the abdominal viscera, *i. e.* they are probably auxiliaries to the brain for the purpose of equalising the nervous power throughout the contents of the abdomen. "Our bodies," says Mr. Abernethy, "are so constructed, that one part seldom suffers alone; and sometimes the most inconsiderable organ, when injured, excites the most violent affections." Some of the natural sympathies are very remarkable, and not to be accounted for by at least direct nervous connection. The sympathy existing between the uterus and the stomach, and between the uterus and the glands of the breast which secrete milk (mammary), is evident from the nausea which is attendant on pregnancy, and the swelling of the breasts, and even secretion of milk during the last stage of pregnancy, and also by after-pains being brought on two or three days after delivery, by drawing the breasts. The sympathy which exists between the brain and stomach is so great, that it is often extremely difficult to ascertain which is sympathetically disturbed. The sympathy between the stomach and remote parts, in which no natural sympathy *apparently* exists, is often remarkably increased by disease. Hence, in cases of painful or irritative ulcerations in the extremities, a stimulus applied to the stomach will almost instantaneously aggravate the local disease, without disturbing the nervous system, or accelerating the circulation; and an anodyne taken into the stomach will as speedily allay pain in a remote part. I have known the stomach to be greatly disordered, immediately on the application of a caustic to an ulcer in the rectum: and it is common for even a robust man to experience a distressing sensation at his stomach, and to faint on introducing a sound or bougie into the bladder. When a part is affected with an irritative disease, the sympathy between it and the whole body is proportionably increased with that of the stomach. In cases of irritation in any part of the intestinal canal, the application of cold water, even to the feet or hands, will produce acute pain in the bowels, and even purging. The same degree of sympathy exists between the skin of the extremities with diseased lungs, heart, bladder,

uterus, &c. An internal inflammation or irritation is sympathetically aggravated only by such applications which diminish the afflux of blood and nervous energy to the skin, as cold water and spirits; for if stimulants be applied, although the sympathy between the diseased part and skin is considerably increased, they have a contrary effect on the internal disease to that on the skin, by producing, as it were, a diversion in its favour; but if the internal disease be that of debility, a stimulus applied to the skin, as blister, mustard poultice, &c., has a stimulating effect on the internal disease, and these effects, as well as many others, involve the doctrines of sympathy in great obscurity.

The great link of sympathetic connection is, however, the stomach and its ganglions. With this organ, the brain, the liver, the small and large intestines, the kidneys, the lungs, and even the joints and skin, sympathise. There are, however, particular sympathies in which the stomach is not concerned, as that between the breasts and the uterus, &c. The sympathy between the brain or the stomach and other parts is greatly increased by irritative disease: for instance, in irritative affections of the bladder, the sympathy between it and the stomach is so much increased, that what irritates the latter, will immediately aggravate the affection of the former. The same may be said of diseases of the uterus, kidneys, rectum, colon, bladder, or even of the extremities. Whether this sympathy be by nerves through the medium of the brain, that is, the brain is acted on by the stomach, and the brain reacts on the disordered part, is doubtful; certain it is, that unfavourable intelligence or vexation, the first action of which is on the brain, will operate on such parts that are diseased, *i. e.* it will excite diarrhœa in persons whose bowels are morbidly irritable or diseased; if the bladder be diseased, it will increase the irritation or mischief; if the uterus be disordered, it will act on it, so as to excite hysteric fits, and even suspend or increase its periodical secretions; and if the stomach be in a state of morbid excitement, it will excite vomiting. It often happens that the sympathetic affection of an organ will run higher than the primary disease, and, from the greater importance of the organ in the animal economy, will become the principal object of attention in the medical treatment: indeed, it is not uncommon for the primary disease to decrease as the sympathetic advances, and spontaneously to terminate when it (the sympathetic) has arrived to an advanced stage. This fact seems to prove that the sympathy between the two parts was not through the medium of the brain. Besides, if organs sympathised only through the medium of the brain, the ultimate sympathetic effect would be on the organ or viscus with which the brain most sympathises, as the stomach; which is not the

case when the primary disease ceases, and the sympathetic one has advanced. Some partially-educated physicians think they fully explain such sympathetic affection by terming it metastasis, by which they mean to say the disease is *translated* from the primary seat to the one it occupies; but whether it was conveyed by some peculiar power of nerves, by the circulating fluids, or by absorbent vessels, they will not so far enlighten the public, or rather expose their ignorance, as to hazard an opinion. If fashionable or English university medicine were stripped of its verbiage, it would soon cease to flourish, even among the most ignorant classes of society. It would be fortunate for mankind if these philosophers of words could *metastasise* diseases of vital parts or of internal organs to the surface of the body. As we can generally account for many natural sympathies by nervous connection of the parts, as the action of the diaphragm and expiratory muscles on irritating the inner membrane of the nostrils, vomiting or irritating the nerves of the upper part of the gullet, &c., it is probable that all sympathies depend on some nervous communication between the parts, which cannot be detected on anatomical examination. It certainly does not depend on similarity of texture, because parts sympathise which greatly differ in structure. The late Dr. Baillie thought, that the fact of deep-seated tumours being dispersed by external mercurial friction, proves, that a sympathy existed between the absorbents of the skin and those of the tumour, because the ointment was certainly not conveyed directly to the tumour by the absorbent vessels of the skin. The action of the absorbents of the diseased mass was no doubt increased by the friction; and if the mercury was not directly conveyed to the tumour, it would reach it through the medium of the circulation; and had the mercury been introduced by the mouth, the effect of dry friction would have been equally efficacious.

A late writer, celebrated for fine flights of fancy, has described a peculiar sympathy, which he terms sympathy of equilibrium, in opposition to sympathy in its more general sense; by which he means the diminished action of parts near to that in which the mischief has taken place; as constipation attendant on inflammation of the stomach, the diminished irritability of the skin when an organ of the abdomen is inflamed: but the diminution of vitality of a part which takes place when an organ is inflamed, or in a state of morbid irritation, is not from sympathy, but from the increased determination of blood and nervous energy to the affected part; the consequence of which is, the other parts are deprived of their natural supply of blood and of nervous power. The sympathetic affection of an organ may

vary a little from the primary affection, in consequence of some difference of structure; but, in essence, it is the same.*

OF CUSTOMS AND HABITS.—A knowledge of the customs and habits of a patient is of no less importance in the treatment of disease than that of the temperament. It is common even for medical men to employ the terms *custom* and *habit* synonymously: but in their strict, or indeed professional acceptation, by CUSTOM, is meant a *frequent repetition of the same act*, and by HABIT, the *effect* the custom has either on the mind or body. The former is, therefore, the cause of the latter. Man, with all his boasted reason, is as much a creature of habit as any other animal. Custom produces a regularity in all his returning wants; and the hours of meals, exercise, and sleep, produce feelings of want, independent of any real demand. In general, the frequent and regular repetition of *small* impressions, produces habit, and their influence is soon disregarded; but *violent* impressions rarely if ever become habitual, for repetition

* The word "sympathy," like many technicalities, is a very useful one to many classes of practitioners. There are many phenomena on which the doctrines of sympathy throw no light. For instance, a few drops of croton oil, rubbed over the tongue and palate in cases of apoplexy, although no part enters the stomach, will excite the action of the intestines, and that, too, without disordering the stomach. Some may account for this effect by its being applied to a surface which extends throughout the intestinal canal not by sympathy, but by what we have termed *continuous* action; but if this be effected by the nerves of the part, how are we to account for the same effect being produced by rubbing the same remedy on the skin of the belly? In such case, the operation cannot be attributed to a peculiar power in the nerves to transmit the action to a part on which alone it can produce a certain effect, for the nerves of the skin are very remotely connected with those of the intestines. Again, in cases of inflammation of an internal organ, blood taken by leeches from the skin over the part will make an impression on the distended vessels of the inflamed organ, often removing it, and generally allaying the pain, although the blood-vessels of the skin have no direct communication with those of the inflamed viscus, and although the quantity is much too small to produce any salutary effect, by reducing the general mass. Inflammation again, of the membrane of a viscus will extend to that which is in contact with it, as a portion of the pleura of the lungs and that of the ribs, which is in contact, although the connection by blood-vessels is remote. Whatever increases the secretion of urine, also rouses the action of the absorbent vessels. The functions of the viscera of the belly are also promoted, and a languid vis brought into action, by the operation of an active purgative on the intestinal canal. The nitro-muriatic acid bath, although only applied to the legs, will excite purging and griping pains. The vapour of spirit of turpentine, taken into the lungs, will, in a few minutes, communicate to the urine a peculiar odour. These facts prove that there is a kind of continuous action, that is not to be accounted for by nervous connection, and that there is an extra-vascular transmission of fluids and a reciprocity of action, independent of nervous influence, on which the doctrines of sympathy throw no light. They, and many more phenomena, shew that a power pervades the system, with which physiologists are little acquainted, and which completely refutes the arguments adduced in favour of materialism by some modern philosophers.

of them enfeebles the body and mind. To those who are capable of taking an original view of the influence of custom on our sensations, it must appear very extraordinary. Accustomed sensations, as I have observed, are so soon unnoticed, as to require an increased action to render them objects of attention; yet when the energy of the mind is excited by the sensation, custom augments the power of discrimination. The experienced shepherd is capable of distinguishing every individual sheep of his numerous flock: the artist will discover the beauties and imperfections invisible to the common eye: the musician will feel with pain the minutest discordance or deviation from tune: and the impression of ungrammatical language in the mind of a pedantic classic will excite a degree of disgust that will induce him to despise the matter, however valuable it may be to a man of science. Custom, therefore, which diminishes or entirely blunts corporeal sensation, renders the mind more alive to impressions. Volition is more a simple impulse of the mind than an exertion, directed almost necessarily to an end, and is affected by custom nearly like the organs of the body. Thus, a sensation which excited a perceptible exertion of volition, will in time produce it and the correspondent action, without the person being sensible of its interference; and so very rapid is this progress, that two ends, or objects, are apparently willed at the same time, though, when examined, they are clearly distinct operations. But, though by custom a person is no longer sensible of certain bodily impressions, or the exercise of the will, yet the corporeal organs, in their several functions, acquire, like those of the mind, a peculiar accuracy of discrimination: — the musician is not sensible of his willing any one motion, yet with the most exquisite nicety he touches a particular part of the string, and executes a variety of the nicest and most complicated motions with a wonderfully delicate precision: indeed, it appears to me a general rule in the animal economy, that if an idea has frequently produced an action, its power is increased; but if the action connected with the idea has been prevented, the power is either greatly diminished, or entirely lost.

The will, by custom and exercise, may acquire a power over the motion of parts of the body not originally subject. In an article on habitual costiveness,* I have noticed this power in promoting the action of the intestinal canal, after regularly attending the water-closet at one period of the day, independent of the action of the diaphragm and abdominal muscles, which are under the influence of the will. I have seen a man who, by frequent attempts to vomit, had brought the muscular fibres of his stomach

* Practical Treatise on the Means of regulating the Stomach and Bowels.

so completely under the power of volition, that, by drawing i up, and giving it motion, he persuaded several eminent surgeon to suppose that he had an animal in his stomach; and some o the leading surgeons of London were so deceived by this powe and his narrative, as to give him a certificate of their thorough conviction of the existence of some living thing in his stomach A remarkable instance of an involuntary muscle being brough under the influence of the will, has been published, which oc curred in the person of Colonel Townsend. This gentlema obtained such a power over the heart, as nearly to stop the cir culation, and produce intermission of the pulse till he fainted and Dr. Parr states, he "knew an eminent lecturer on medicine who in his youth could, and is perhaps still able, to produce considerable effect on his pulse, by a power of influencing th action of the heart." The power of custom, in increasing th force and facility of the action of muscles, and even of bringing only a portion of a muscle into action, is well known. In th action of medicine on the body, we find some variety. Moderat power by custom loses its peculiar effect: thus the dose of a emetic, or an aperient medicine, after custom, requires to b augmented to produce the desired effect. By regular use th stomach will become accustomed to such a dose of vegetabl poison, that would destroy life in another, who had not been i the habit of taking it. In Turkey, where the natives che opium, in the same manner the British tars do tobacco, it i common for a person to take a quantity at a time, which woul poison twenty people who had not been accustomed to it. W know a lady who has been in the habit of taking laudanum fo twenty years, to subdue a spasmodic affection of the bowels, wh has found it necessary to increase the dose gradually, till sh has arrived to the quantity of a wine-glassful — a quantity suf ficient to poison two or three people, who have not been accus tomed to the regular use of this drug. In prescribing an opiat medicine, to allay pain, subdue irritation, or procure sleep, it i therefore of consequence to know if the patient has been in th habit of taking opium, and the extent of the dose. The effec of a regular use of a spirituous or a vinous liquor is similar to that of laudanum or tobacco. The dram-drinker gradually re quires an additional quantity, or augmented strength, of his favourite liquor, to produce a cheering effect. It is therefore of im portance that a practitioner should be acquainted with the customs and habits of a patient; for, when addicted to the free use of spirits or wine, when it is necessary to stimulate the stomach by an aromatic, the dose should be proportioned to the quantity of spirits or wine to which he had been accustomed: and in cases of inflammatory disease, the use of the lancet and of depleting

medicines must be governed by the habit. Another effect of custom on the moving powers, resembles the operation of ideas. If two muscles, or even the different parts of one muscle, have been used to act together, exciting the action of one will produce that of the other. If, however, this kind of association be prevented by a strong effort of volition, and strengthened by a different habit, they are induced to act separately, with the greatest precision. This power is attained by musicians.

A singular effect has been attributed to custom, which may perhaps be more satisfactorily explained on other principles. As we usually feel only in the sentient extremities of nerves, it has been supposed that from custom we refer every affection of the nerve in its course to the extremities; and thus to the man who has lost a leg, even many years, a pain in the stump appears to be seated in the toe; and I have known a gentleman who had lost both legs above the knee, affected with gouty inflammation at the ends of the stumps, which appeared to him to be in the feet, and exactly similar to the paroxysms he had experienced before he lost his legs; and to quiet his mind, the clothes of the bed below his stumps were suspended by a strong cord, in the usual manner. This sensation, however, does not depend on custom; for a disease at the origin, or in the course of a nerve, is at once referred to its extremity, though the sensation was never before experienced. In cases of epilepsy dependent on diseased structure in the brain, it is common for the convulsive disturbance of the system to commence in a foot, with the sensation of something (termed the electric aura) ascending to the brains; and a pain in a foot, with a sense of numbness, is a common precursor of palsy of the same side from mischief in the brain.

Custom regulates the degree of tension necessary for sensation. The soldier or sailor, accustomed to the sound of a cannon, can hear a person speak in a common tone during the loudest roar; and a person, whose hearing is bad, will hear well while a drum is beating, or when travelling in a carriage. A person who sleeps near a mill during the time that it is at work, producing a noise that may be heard at a considerable distance, is sensible of the slightest noise occasioned by any other means, or which is in any way different. A person who has been accustomed for some time to be awoke at a certain hour, will continue to awake at that time; and this does not depend on the quantity of sleep: for whether he adjourns to his bed at an early or a late hour, he will awake at the same time. Custom equally regulates the degree of tension necessary to the muscular action, as the musician experiences by the degree of pressure suitable to the production of a given sound from a piano-forte or an organ: and it associates motions with

sensations not otherwise connected. For instance, there is no necessary connection between a particular figure of a country dance and a given tune, since many different figures may be given to it; but when the music begins, the accustomed movements, without any sensible exertion of volition, follow. Custom also associates different motions, though not necessarily or naturally connected; and from the habit established, they cannot be performed separately. It determines the degree of force and velocity with which motions can be performed, and which, after the habit is established, cannot be violated. A blacksmith, unless peculiarly favoured, cannot become a watchmaker. Custom also establishes the order in which certain sensations and motions return. An infant may soon be brought to feed at regular hours; and those who retire to the garden immediately after breakfast, will feel little or no inconvenience should their breakfast be delayed an hour or two. The same call will also regularly return with almost every change of the constitution, in other respects. These motions, established and associated by custom, are sometimes broken with difficulty, and occasionally with injury to the constitution. If the supplies of food, or the discharge of the excretions, be not obeyed, the call will often not again recur till the next period, and the feelings in the interval will be uncomfortable. Indeed, the deprivation of the most trifling accustomed gratification frequently injures the health, while the most discordant noise, the most offensive smell, or the most disgusting object, lose every unpleasing effect from habit. It was this circumstance that occasioned the ancient sage to remark, "Choose the best occupation, for *custom* will make it the pleasantest." On the other hand, these accustomed associated motions render many diseases very obstinate, as ague, epilepsy, &c., when the periodical return is established. In such circumstances, we cannot often succeed without stopping, as it were, all motion, to commence a new and more salutary series. Mr. Abernethy, in his Lectures on Surgery, mentions a case of epilepsy in an opulent gentleman, which uniformly occurred on entering his carriage. Mr. Abernethy, supposing that interruption of the ideas which were concatenated with his effort to enter the carriage would prevent the paroxysm, directed a person to surprise him by some remark, or action, at the time he was about to put his foot on the step. This interruption had the desired effect, and the gentleman afterwards entered the carriage without any dread of experiencing a return of his malady. I knew an epileptic patient in Chepstow (a ship carpenter), who, when at work in the most perilous situations, always felt perfectly secure from recurrence of a fit; but on being in a situation which did not engage the mind, generally experienced a fit.

I may here notice the impressions made on the mind before reason has scarcely dawned on it, and which frequently continue after reason has arrived to maturity, and the mind has been enlightened by education and observation. The mind of a Jew, even of a liberal education, is so prejudiced against the flesh of the swine (which, to a Christian, is often a great luxury), that nothing will induce him to eat it. An Englishman has, from early impressions, as great an aversion to the flesh of the horse, although a clean-feeding animal, as the Jew has to that of a swine. I have known a British officer make a very hearty dinner of a steak of a young horse that had been killed in battle, which was introduced as a beef-steak; who, on being told two hours after the meal, that it was the flesh of horse, vomited violently, and for some years experienced nausea on seeing a beef-steak. A Hindoo, again, has an unconquerable objection to the flesh of the cow and of the pea-fowl, which, with Europeans, are great favourites. A Frenchman considers the hind quarter of a frog a great dainty, to which, from prejudice of education, an Englishman has an invincible dislike. Religious prejudices and opinions, impressed on the mind before reason has taken full possession of her throne, generally exist for life, and have an influence on disease, and on the operation of medicines.

QUESTIONS TO PATIENTS, &c. — Having noticed the passions of the mind, the various temperaments, customs, and habits which, more or less, modify all diseases, I shall introduce a series of questions to be put to patients, the answers to which are likely to afford the necessary information relative to temperament, customs, and habits, and the real nature of the malady, with such practical remarks which I conceive likely to afford a guide in its medical and dietetic treatment.

Q. *What is your age? Did you, prior to your present illness, enjoy good health? Have you impaired your constitution by any irregularity?*

In acute diseases — as inflammation of the lungs, pleurisy, inflammatory fever, &c. — the propriety of blood-letting, its extent or repetition, as well as the use of aperient and diaphoretic medicines, must in a great measure depend on the age, natural constitution, and habits of the patient.

Q. *How long have you been ill? In what manner were you attacked? Is your complaint stationary, or is it declining or advancing?*

In fevers of all kinds the practitioner should be acquainted with the stage of the disease, and whether the complaint be advancing or otherwise.

Diseases are divided into two kinds, named *acute* and *chronic*. The period of an acute disease has been limited to within forty

days; if it extend beyond that time, it is regarded as chronic. The general symptoms of acute disease are a quick pulse, heat of skin, thirst, furred tongue, pain in the loins or limbs, an incapacity of attention or exertion of mind. These distinctions are not sanctioned by practice; for some diseases continue in an active state much longer, and it is common for some *chronic* diseases to exhibit symptoms of an *acute* nature.

Q. *Have you been affected with slight shiverings (rigours)? Are you feverish or thirsty? Have you any pain in the head or chest?*

In rheumatism or cough, it is of great consequence to be acquainted with the state of the system; for in case of fever, or a feverish disposition (indicated by rigours, increased heat, pains in the head or chest, and quickness of pulse), the guaiac gum, and other stimulating medicines, would be injurious in the former disease, and the paregoric elixir in the latter.

Rigours attendant on cough, indicate some serious mischief to be going on in the lungs. When rigours attend acute pains in the bowels, the disease may be suspected to be of an inflammatory nature, and not common colic. In cases of deep-seated pain, particularly in the loins, rigours denote the pain to arise from inflammation; and if the rigours continue to recur for a week or ten days after the first attack of pain, the disease is not to be considered rheumatic, but inflammatory, and that suppuration will probably take place if very active means be not employed to prevent it.

Q. *Are you restless? Have you been accustomed to take laudanum? And in what quantity?*

In irritative diseases the quantity or propriety of administering an anodyne, is to be determined by the habit of the patient, *i. e.* whether it be leucophlegmatic or sanguineous. (*See* SEDATIVES, p. 41.)

Q. *Are you affected with heat or shiverings?*

In cases of rheumatism, cough, pains in the head or bowels, these questions, answered in the affirmative, prove that the disease is of an inflammatory nature, and that whatever tends to stimulate the system should be avoided, both in medicine and diet.

Q. *Have you pain in any part of the body?*

In all fevers it is of great importance to attend to local pains; for inflammatory fever often terminates fatally, by producing inflammation either of the brain, lungs, or bowels, which, by early attention, may be in general obviated by the application of leeches, blisters, &c. If local inflammation should appear, during fever, in any part of the body not of vital importance, and in which suppuration is not likely to be attended with any se-

rious consequence, it should be encouraged by warm poultices, rather than dispersed by any cold application. When dispersion is deemed necessary, it should be attempted by extracting blood from the part, or by scarification: and, if the joints be attacked, also by blistering.

Q. *Have you been affected with shivering fits? Are they succeeded by heat and perspiration?*

All inflammatory diseases are generally ushered in by the slight shiverings termed rigours, which are succeeded by an increased heat of the body, and sometimes by perspiration. These symptoms occurring during inflammatory fever, or local inflammation, often so far deceive an inexperienced practioner, as to induce him to consider the disease a species of ague, and thus lead to the improper exhibition of the Peruvian bark. In doubtful cases, it will be necessary to enquire how often the shiverings occur; and if only once a day, at what period, how long they last, and also the degree of heat and perspiration, and particularly if there be an evident intermission after the termination of the perspiration till the re-occurrence of the shivering; and also if any local mischief be going on in the system, of which the shivering may be symptomatic. The Peruvian bark, or stimulants of any kind, should not be administered in cases of shivering, until it be clear ague, as a considerable aggravation of the inflammatory affection might be thereby produced. An emetic and the saline mixture are proper in ambiguous cases, till its real nature be ascertained, which a few days will decide.

Q. *Is your tongue furred, and of what colour? Have you a disagreeable taste in the mouth, nausea in the stomach, or is your appetite bad?*

The answers to these questions will determine the propriety of exhibiting an emetic, particularly in cases of indigestion, and the commencement of fevers. The colour of the tongue, in ambiguous fevers, with a declining state of the strength of the patient, will often decide its nature. In almost every disease, particularly in fevers, it is proper to examine the state of the tongue, for by it the condition of the stomach may often be ascertained; and likewise the occasion the patient has for drink, when, on account of delirium or stupor, he neither feels his thirst, nor is capable of calling for drink: — from an inspection of the tongue, a judgment may be formed concerning the nature, increase, and remission of fever. When the tongue is dry, and covered with a dark scurf, attended with wandering of the mind and dejected countenance, there will be reason to suspect the fever to be Typhus, or strongly disposed to it. When the tongue becomes moist, and the edges clean and red, the disease may be considered on the decline, or near its termination.

Q. *Are your bowels properly relieved daily ?*

In all diseases, it is absolutely necessary to be acquainted with the state of the bowels. In acute or inflammatory diseases they should be kept open; and in chronic complaints costiveness should be avoided. If purging should occur, without the aid of medicine, during inflammatory fever, it should not be checked, but moderated; in putrid fever, where the strength of the patient is much reduced, it is often of great service.

Q. *Are the stools pale, dark, or bilious ?*

In jaundice, the colour of the stools shows if there be any obstruction to the free passage of the bile into the intestinal canal. If they are dark, slimy, and offensive, it is evident that digestion does not go on well, and that there is irritation in the intestinal canal. If they are pale, it is a proof there is a deficiency of the secretion of bile.

Q. *Are the stools copious, hard, or liquid ? and is there any irritation at the fundament, or inclination to go to stool without being able to evacuate fæces ?*

The *quantity* of fæces evacuated is of as great consequence as *frequency ;* for a person may have frequent motions from irritation at the fundament, and yet not be purged. The matter evacuated is often nothing but mucus, from irritation in the great intestine, which is termed *tenesmus*, and not purging. In cases of purging, it is necessary to enquire whether the stools are soft, or whether they come away in hard lumps, with a quantity of slime. When the discharge consists of soft or liquid fæces, it is termed *diarrhœa ;* but when it is slimy, and the fæces are in *hard lumps*, it is termed *dysentery.*

Q. *Is your pulse weak, strong, quick, frequent ? or does it intermit ?* *

By the pulse, we judge of the state of the circulation with respect to fulness, and the state of the nervous system ; for the heart and arteries being greatly under the influence of the brain, the manner in which the pulsation is performed shows whether the nervous or cerebral system is in a morbid state of irritation. To draw any accurate conclusion from the state of the pulse during disease, we should have some knowledge of it when in health, for the pulse differs materially in different subjects. A full or oppressed pulse indicates plenitude of the sanguiferous system : a small frequent pulse, with a cool skin, indicates weakness : a quick pulse shows great irritation of the cerebral or nervous system. It often happens, that a pulse indicative of great weakness, is attendant on inflammation of the lungs, sto-

* The pulse is occasioned by contraction and distention of an artery from blood propelled into it by the heart. The *intervals* of the pulsations are the times when the heart itself is distended with blood.

mach, intestines, and brain; but in these, and the like examples, the *nature* of the malady, and not the *state of the pulse*, must determine the necessity of blood-letting. When the pulsations *rapidly* follow each other, it is said to be *frequent*, which may also be *full*, *strong*, and *hard*, or *soft*, *small*, and *weak*. When the pulsation is performed with great *celerity*, although the *intervals* be long, it is termed *quick*. A *slow* pulse may, therefore, be *quick*, and a *frequent* pulse *not quick*; the term *quick* applying to the pulsation, and not to the *interval* of the pulsation, to which the term *frequent* applies. When the strokes do not follow the usual interval, and sometimes not till after twice, thrice, or four times the usual space, it is termed *intermittent*. In some animals, this pulse appears to be almost natural, and is common to some people even in a state of health. An intermittent pulse arises from an unequal influx of the blood into the heart, from increased irritability, or disease of the organ itself. Sometimes it is produced by pressure of a tumor, or water in the chest or pericardium.

The pulse of a child should be felt whilst it is asleep, on account of its being so easily quickened by new sensations. The pulse of a healthy infant, on the day of its birth, is between 130 and 140 strokes in a minute; the mean rate during the first month, 120; and rarely, if ever, below 108. During the *first* year, the limits may be from 108 to 120; the second year, at 90 and 100; the third year, 80 and 100; the fourth, fifth, and sixth, nearly the same as the third. The seventh year it is sometimes 72, but generally more. The twelfth, about 70. In adults it is usually from a little below 60 to a little above 80. The natural pulse of some people is as low as 25.

It must be remembered, that the pulse in health varies in the course of the day. In the morning it is slow; after a full meal it is quickened 10 or 12 strokes in a minute. Even during fever it varies much, according to the state of the skin. When the skin is dry, it is often 20 or 30 strokes more frequent than when it perspires freely. Position of body also makes some difference; in an incumbent posture, it is more frequent (about five strokes in a minute) than when erect.

When the pulse is so far accelerated as to exceed the healthy standard 15 or 20 pulsations in a minute, some disorder in the system may be apprehended. But the irritability of a child and some adults is such, that a *very slight* fever will considerably increase the frequency of the pulse when no danger attends; and as there is in children much difficulty in counting the pulse when it is at 180 and upwards, we are better enabled to judge of the danger of fevers in them by the countenance, thirst, quickness

of breathing, aversion to food, pain, and restlessness, than by the pulse.

We must take care that we are not deceived by what is termed an *oppressed pulse*, which is the effect of an overloaded state of the sanguiferous system; the heart, in consequence, not being able to contract with sufficient force properly to propel the blood through the arterial system. This is accompanied with other symptoms of plethora and distention of the vessels of the head and chest, occasioning head-ache, giddiness, difficulty of breathing, &c.

Many physicians make use of a watch at the time of feeling the pulse. This I conceive cannot in any instance be necessary; for it is not altogether by the *number* of pulsations in a given time that we are to form an opinion, but by the *manner* in which they are performed. Hence the pulse of a patient with fever will be very quick for a few pulsations, then slow and languid, and at other times it will intermit; so that saying it beats at the rate of 90 or 100 in a minute, is next to saying nothing. Besides, every medical man should be able to say how frequent a pulse is, within two or three pulsations, in a minute, without the aid of a watch. If he cannot, he must have benefited little by his experience. I have observed that it is the ostentatious and ignorant only that make use of a watch in such cases. The physician should not feel the pulse of his patient till he has been a few minutes in his company, for the agitation generally produced on his first appearance has a great effect on it.

Some further observations on the state of the pulse, as indicating the propriety of bleeding, are made in page 185, under the head of VENESECTION. (*See* also EVACUANTS, page 32.)

Q. *Of what colour and consistence is the urine? Does it deposit a sediment?*

When a fever is abating, and drawing to a favourable crisis, the urine generally deposits a lateritious sediment. In putrid fever it often emits an offensive smell. In the last stage of pulmonary consumption, it is also offensive to the smell, and deposits a whitish matter. In cases of pains in the loins, the state of the urine will often determine whether the kidneys are the seat of the disease.

In hysterical affections the urine is pale and thin. In debilitated individuals it has a frothy head, which often remains a considerable time, on account of its abounding with viscid and oily particles. When the stomach is disordered, it deposits a light brown or red sediment. (*See* ANTACIDS, page 6, and ANTALKALINES, page 7.)

Q. *Have you night-sweats? Are they preceded by rigours*

and heat? At what time do they come on? Are they copious, general, or confined chiefly to the breasts? Do they smell strong?

In cases of inflammatory fever, perspirations are critical, and should not be checked, unless they are so excessive as to weaken the patient.

Q. *Is the skin moist, or dry and hot?*

In all fevers, and internal inflammatory attacks, it is very necessary to attend to the state of the skin, for in those complaints it is of the first consequence to produce a moist surface. By the evaporation of perspirable matter, superabundant heat, and probably electric matter, are conducted from the body. — A dry skin, on the contrary, favours the accumulation of heat in the system.

The perspiration or sweat is very analogous to the urine; and when either of these secretions is diminished, the other is generally increased, so that they who perspire the least make the most water, and *vice versa.*

Copious perspiration, attended with a sense of general lassitude, and a feeble pulse, indicates great debility or laxity of the cutaneous vessels.

Q. *Is the secretion of urine excessive, or otherwise?*

An excessive evacuation of urine, like excessive perspiration, is a frequent cause of debility and emaciation of the body, and also of general nervousness. In dropsical cases, it is of great consequence to know whether the kidneys perform their office, for dropsy will sometimes arise from a sluggish state of the kidneys.

Q. *Is your sleep refreshing or disturbed?*

This question, in cases of fevers, will sometimes determine if the brain be much affected. In many diseases, by the state of the sleep, the practitioner is enabled to ascertain whether the nervous system be much disturbed, or the principal seat of the disease.

In affections of the head, the dreams and sensations of the patient during sleep will, in some degree, assist the practitioner in forming his judgment, if it arises from a distention of blood-vessels, threatening apoplexy. In cases of disturbed sleep, it will be necessary to attend to the appearance of the eyes. If the pupils be much contracted, the blood-vessels distended, and the patient cannot bear to look at a luminous body, an inflammatory attack of the brain may be suspected.

Q. *Is your respiration free or confined?*

In inflammatory fevers, difficulty of breathing indicates general plenitude of blood-vessels, or a great determination of blood to the lungs; in either case the loss of blood and evacuating remedies are necessary. In dropsy of the belly or extremities, the state

of the breath will determine if there be an effusion of serum in the chest. When shortness of breath comes on rather suddenly, attended with rigours, and the *acute* pains in the chest, termed stitches, it denotes inflammation of the lungs, or pleurisy.

Q. *Do you expectorate freely, or otherwise? What appearance and taste has the mucus you bring up?*

In all coughs, it is necessary to enquire, if the patient expectorates, and the appearance of the phlegm. Cough generally terminates in an expectoration of clear mucus, which has frequently a saltish taste. In *chronic* cough, the violence of the cough will, in a great measure, depend on the tenacity of the phlegm. In such cough it is of great consequence to produce a secretion of mucus, that will require little exertion to bring up. In inflammation of the lungs, it is necessary to attend to the appearance of the mucus expectorated: if it be clear, and comes up freely, it is a very favourable omen; if tinged with blood, it often indicates the propriety of bleeding. If difficulty of breathing and cough be not attended with expectoration, the patient may be considered in great danger. — (*See* EXPECTORANTS, p. 34.)

In cases of cough attended with emaciation of the body, by the *appearance* and the *quantity* of the mucus expectorated the practitioner is enabled to ascertain if the lungs are ulcerated. If the matter be opaque, of a yellowish appearance offensive to the taste, sometimes tinged with blood, and the patient be affected with hectic fever, or much emaciation, the case may be pronounced pulmonary consumption.

Q. *To what diet have you been accustomed?*

A knowledge of the mode of diet of the patient is necessary not only to enable the practitioner to form an opinion of the nature of the disease, and its probable termination, but also to prescribe medicines, and to give instructions as to his regimen. Much, however, must depend on the *violence* of the symptoms in acute or febrile diseases, or weakness in chronic disorders.

Q. *What medicines have you taken, and with what effect?*

By being acquainted with what has been done for the patient and the effects thereby produced, the practitioner has the great advantage of knowing what is left undone, and of forming an opinion of the situation of the patient.

Q. *Was he ever afflicted in the same manner, and how often?*

When a patient is found in an insensible state, this question put to his friends, will in some degree enable the practitioner determine whether the disease be apoplexy, catalepsy, the stupor following epilepsy, a fit of intoxication, or swooning. If the pa-

tient has been similarly affected, he has the advantage of enquiring what was then done for him.

Q. *Has his countenance altered since his indisposition?*

The countenance of a patient, in all diseases, should be particularly noticed, for in prognosticating the issue of a disease, medical men are often more governed by the countenance than any one single or even combination of favourable or unfavourable symptoms. The following description Hippocrates gives of the looks of a dying man, which, on account of having been first noticed by him, is termed the Hippocratic face: — "When a patient (says he) has his nose sharp, his eyes sunk, his temples hollow, his ears cold and contracted, the skin of his forehead tense and dry, and the colour of his face tending to a pale green, or lead colour, one may give out for certain that death is very near at hand, unless the strength of the patient has been suddenly exhausted by long watching, or by looseness, or by having been a long time without eating." This observation has been confirmed by those of succeeding physicians.

To female patients, other questions are necessary, with the nature of which every female is well acquainted, and which no sensible female will hesitate to answer fully.

If she has an infant, it will be necessary to enquire whether she suckles it herself, and how often; for many diseases arise in weakly women from suckling their infants too frequently; besides, the practitioner, in consequence of being unacquainted with this circumstance, may administer medicines which might prove injurious to the infant. In some cases it may be necessary to wean the child, either for the benefit of the mother or child, or both.

In the diseases of children, the following questions will be necessary: —

1. *The age of the child.*

2. *Is it cutting a tooth? and how many teeth has it?*

In cases of purging or fever, the answer will determine if the complaint arise from teething. — (*See* DENTITION.)

3. *Is it rickety?*

4. *Does its stature correspond with its age?*

5. *Has it had the cow-pox?*

In eruptions of the skin, it will be necessary to make this enquiry, as cutaneous affections resembling the itch are supposed to follow this disease.

6. *Has it had the hooping-cough, small-pox, measles, scarlet fever? and do any of those diseases prevail in the neighbourhood?*

When a child is affected with fever, it will be very necessary

to make those enquiries, as it may probably be indisposition pr ceding some eruptive fever.

Q. *Has it a large belly, with emaciated limbs and large joints*:

These are symptoms of great weakness, approaching to ricket and often arise from worms. — (*See* WORMS.)

GENERAL REMARKS. — We must bear in mind, that mo acute diseases have two stages, *viz.* super-irritative and sub-irr tative, or when the disease exists in full power, and when it is c the decline. In the first state, medicine will often have no effec and all that a physician can do is to watch nature, and guai against the mischief which so often follows the officious inte ference of nurses. In the latter stage, tonic medicines, as tl Peruvian bark and wine, generally prove very beneficial hastening the recovery of the patient; and hence a medicir often obtains reputation in the cure of a disease, which, had been given in the first stage, would have been injurious. W should be very careful not to begin this restorative plan too soo for a recurrence of the inflammatory symptoms is too often pr duced by an over-anxiety to recover the patient.

There are many deviations from health to which no specif name can be given. Those of a chronic nature may generally l traced to some affection of the stomach or bowels. In suc cases we should endeavour to strengthen the stomach by ton or bitter remedies, with such combinations as attendant sym toms may indicate. Thus, for instance, if the patient compla of heart-burn or acidity in the stomach, with *slight purging*, ton medicines, as rhatany, columbo, &c., should be taken in *lim water*; but if the bowels be confined, the addition of magnes will be more proper than lime-water. — (*See* ANTACIDS, p. 6.)

On the means of ascertaining the nature of different disease I have already been explicit. One circumstance we must bear mind is, that many diseases, particularly those in which tl nervous system is principally affected, will recur, unless the di position of the system to the disease be effectually destroyed l a perseverance in the medicine. Hence, in consequence of patient discontinuing the medicine when he supposes the mala has terminated, in a short time he will experience a relapse; a because the medicine only produced a temporary relief, it is ve common for a patient to object to a further trial of it, when, h he continued it for a little time longer, the disposition to the di ease would have been entirely overcome. Of this class of di eases are intermittent fevers, nervous head-ache, St. Vitu dance, insanity, epilepsy, &c. &c.

Before a purgative be prescribed, we should enquire if t patient be subject to piles, or easily affected by such medicin If the bowels are irritable, we should administer the milde

aperient; and if he be subject to piles, we should not employ aloes, unless it be advisable to reproduce them, for many complaints follow the suppression of them. Before we determine on the exhibition of an emetic, we should learn its general effects on the patient; for some people suffer so considerably during its operation, that in many diseases it may be productive of mischief. — (*See* CATHARTICS, p. 19. and EMETICS, p. 27.)

A knowledge of the occupation, or mode of living, both with respect to exercise and diet of a patient, is also necessary, in order that we may point out the means of preventing a recurrence of the disease, when it is evidently the consequence of either of them.

As many diseases are produced by the mind, and as all are more or less influenced by it, we must also attend to the state of the mind as well as the body. In order to impress the importance of this more on the mind of my readers, I have in this edition introduced a chapter on the Passions. It is a fact, no less curious than certain, that we often meet with people who ridicule the idea of being ill, and are resolved not to submit to disease. A striking instance of this kind lately occurred within my knowledge. The servant of a gentleman, confined to his chamber by ague, was attacked with the same disease at the time he began his dinner. Determined, as he expressed himself, "that it should not conquer him," he immediately joined the other servants in getting in the harvest. By exertion he soon brought on copious perspiration, and the symptoms entirely left him. Two days afterwards, about the same hour, being seized with violent shiverings and sickness, he immediately left the table, and went to his work as before. After this he did not experience a return of the fit. Three of the servants were at the same time laid up with ague. An instance of an opposite state of mind I have noticed under the head of CONTAGION, p. 199. No medical man of experience will doubt, that diseases are rendered more obstinate by suffering the mind to give way to them. If courage will secure a person against the contagion of an infectious fever, it is clear that mental exertion must be of great service under disease. Captain Bever, in giving an account of a fever that prevailed in the West Indies, observes, "and what is very remarkable, not one recovered that on the first attack gave himself up."

It is not only necessary to pay attention to the temperament and habits of the patient, but also the stage of the malady; for the treatment recommended for the first stage of a disease may be highly improper in the last stage. Even in local inflammation, external or internal, occurring in a debilitated subject, a strength-

ening medicine may be necessary during the use of a derivative — (*See* DERIVATIVES, p. 23. and RUBEFACIENTS, p. 41.)

A distinction is to be made between disorder and disease. By the former is understood, a derangement of the functions of the part, or morbid excitement, without diseased structure. An organ may be disordered, or be in a state of morbid irritation, without structural disease, or any change taking place in its organization. When the structure of a part of the body has undergone a change, or a morbid deposition has taken place in its substance we say it is diseased, and such disease may take place without disordering its functions. Dissection has proved that disease will take place in the texture of the liver to a considerable extent, and that tubercles will form in the brain, and other parts, without disturbing their functions. Hence disorder may be simple or complicated, *i. e.* independant or dependant on organic mischief; and again, disease may exist in an organ without disordering it. When we therefore say an internal part is disordered, the question is, whether the structure of the part is diseased, or whether it be only in a state of irritation; or, in other words, whether the nerves are disturbed, without organic disease or structural mischief.

OF AGUE, OR INTERMITTENT FEVER. — This disease is termed *Intermittent*, the paroxysm being followed by complete intermission, or absence of fever. The paroxysm consists of three distinct stages, *viz.* the cold, the hot, and the sweating. During the hot stage, the febrile symptoms, as heat, fulness of pulse, &c. run higher than in any other fever. When the paroxysm recurs every day, it is called *Quotidian Ague*; when every other day, *Tertian*; and *Quartan*, when it returns on the first and fourth days. It is likewise termed *Autumnal* ague, when it happens in autumn, and *Vernal*, when in the spring. Other varieties are enumerated by authors; but as they resemble each other, both in the train of symptoms and indications of cure, and arise from the same causes, an enumeration of them would be productive of no practical utility.

The *cold* stage commences with a remarkable shivering of the whole body, which, in an hour or two, is gradually succeeded by a degree of heat, with pain in the head, thirst, delirium, a quick pulse: as the heat abates, a moisture is perceptible on the skin, which increases to a profuse perspiration.

The phenomena of this disease may be thus explained. The exciting cause (generally exhalations from a marshy land) first paralyses the vital powers, or the powers on which the heat of the body depends, as to reduce the temperature to the low degree which takes place in the cold stage, and the increased temperature, which gradually follows, is an effort of the *vis medicatrix*

naturæ (conservative power) to remove the effect, which runs high, in proportion as the reduction was low. The sweating fit is another operation of nature to convey the excess of caloric from the body, and thereby reduce the temperature to its natural standard.

CAUSES. — In consequence of the prevalence of this fever in marshy countries, it is generally attributed to the effect of marsh effluvia; and having nearly disappeared in marshy districts after the land had been drained, this opinion is no doubt correct. Within the last eighteen months the disease has been very general throughout this country; and has even proved very obstinate in those parts where it had not appeared in the memory of the oldest inhabitants. It has been very general in the metropolis and its vicinity, where it has been, from time immemorial, very rare. This general prevalence of ague, I am disposed to attribute to the exhalations, probably of the nature of marsh effluvia, during the continuance of warm, dry weather, after the earth had been saturated by rain, which had previously continued, more or less, for several months.

TREATMENT. — The treatment of this disease must be regulated by the state of the constitution. Violent as the hot stage is, it is succeeded by a considerable degree of debility, and, indeed, in almost every instance, preceded by it. The object of practice is to invigorate the stomach, and thereby increase the strength of the body; and for this purpose the Peruvian bark has been found to succeed so well, that it is generally considered a specific. In all cases it will be advisable to premise an emetic of ipecacuan powder, and afterwards to clear the intestines by a full dose of the compound colocynth pill, with three grains of calomel. From inattention to this preparatory treatment, the Peruvian bark often disagrees with the patient, either by producing nausea, oppressing the stomach, or disturbing the bowels. After the pills have performed their office, the bark powder may be administered, as directed under the head PERUVIAN BARK, p. 89. The rhatany root has the important advantages over the Peruvian bark, of not oppressing the stomach, of being less liable to disagree with the bowels, and much more pleasant to the palate. It may be administered from fifteen grains to twenty-five, in the same manner as directed for Peruvian bark. If purging should occur during the use of these remedies, five or six drops of liquid laudanum may be added to the dose three times a day; and in case of costiveness, five grains of rhubarb powder may be substituted for the laudanum. The diet should be generous, and the patient allowed a glass or two of Port wine every day after dinner. These directions are applicable to every variety of ague.

In the treatment of this disease we must bear in mind, that the parts of the body most likely to be disordered by the violence of this fever, are the liver, spleen, and stomach; and that the liver is frequently tumefied, so as to render the exhibition of the bark highly improper. When, therefore, a yellow and bloated countenance, with a sense of fulness in the chest or belly, or pain in the region of the liver, indicates the viscera to be much affected, it will be advisable to prepare the patient for the use of the Peruvian bark or rhatany root, by a gentle dose of jalap and calomel (*See* CALOMEL, p. 82.), which should be repeated two or three times a week, according to its effects on the bowels, and the strength of the patient. He should also take a grain of calomel every night at bed-time for about a week, during the use of the bark or rhatany root, and if the liver be in a state of excitement, a blister or stimulating plaster should be applied over the region of the liver. — (*See* TONICS, p. 48.)

Arsenic is a more certain remedy for ague than either the rhatany root or Peruvian bark. It is, however, too powerful a medicine to employ in domestic practice, and should only be administered in those cases which resist the treatment above recommended, or when the patient cannot be prevailed on to give those remedies a fair trial. In obstinate cases of ague, the use of the solution of arsenic only for one day will so far modify the disease, as to bring it under the influence of small doses of Peruvian bark or rhatany root. Ague is sometimes, particularly in children, attended with such a morbid irritability of stomach and bowels, as to render the exhibition of the bark or rhatany powder impracticable. In such cases the arsenic is a most valuable remedy. Some time since I was requested to see a child in Kent, in consequence of her medical attendants having pronounced her recovery very doubtful. She was only three years of age, had been affected with a quotidian ague six weeks, and had for the last week refused to take any sustenance except milk and water. The Peruvian bark was the only remedy that had been tried, but it did not appear that it had been given in sufficient quantity. The belly was much enlarged, and the powers of the system so much reduced, that I had little hope of any treatment proving successful. I directed half a drachm of the white mercurial ointment (made as directed under the head of CALOMEL, p. 82.) to be rubbed over the bowels twice a day, and six drops of the alcaline solution of arsenic to be given in a little water three times a day. In the course of two days she was evidently better. On the third day she took some food, and experienced no recurrence of the fever. The patient having a most invincible dislike both to the Peruvian bark and rhatany root powder, the solution of arsenic was repeated for three days longer, when it was en-

y discontinued, and a clyster of rhatany powder and broth inistered twice a day for a few days, to strengthen the sys- , and prevent a relapse. The small quantity of one-eighth of a grain of arsenic being sufficient to poison an adult, it lear this medicine should not be given in substance, nor ıld it be continued longer than three days, if it be possible to d it, as organic disease of the stomach has been known to ıw its use. In the first part of this work I have given very icit directions for the use of the Peruvian bark and rhatany in ague. — (*See* TONICS, p. 48, and PERUVIAN BARK,).) — It may not be amiss to repeat, in this place, that it is ılutely necessary to persist in the use of the Peruvian bark or any root powder for a few days after the ague has left the ent, and to discontinue it gradually, in order effectually to come the disposition of the system to a recurrence, for when fever recurs after the interval of a week, it is more difficult ıre.

he peculiar alcali of the Peruvian bark, termed quinine, and sulphate of quinine, have lately been much employed as a spe- remedy for ague; and several cases have been lately pub- d by Dr. Elliotson, and other physicians of eminence, which e cured by it. I have given particular directions for the use ıese preparations, p. 160. The snuff of a candle, in the quan- of five grains, made into pills with gum arabic or soft bread, n three times a day, and cobweb, about five grains (made a pill), taken three or four times a day, are much recom- ıded by some respectable practitioners. In Norfolk, the lic powder, taken as directed, p. 85, has proved very bene- l in curing this disease. — (*See* effects of an EMETIC in equal- g the circulation, &c., p. 27—30.)

ıbstraction of blood during the cold stage, with the view of inishing the violence of the hot stage, has lately been recom- ıded by some practitioners; but in the majority of cases in ch the experiment has been made, it has evidently proved ırious. The cold stage is probably the morbid portion of the oxysm, and the hot stage an effort of nature to counteract the ilitating operation of the marsh poison, and the perspiration o reduce the degree of increased temperature to its proper ndard, or, as some suppose, to expel the poison from the ly. Abstraction of blood, when the system is under the de- tating influence of the poison, is a most bold experiment; and he stamina or re-action of the body be not good, may endanger . The exposure of the whole surface of the body to warm our, in the vapour bath (described p. 227), on the commence- nt of the cold stage, or when its approach is indicated by any ticular sensation, is more likely to act, in concert with internal

medicine, in the speedy cure of the disease, and in preventing visceral mischief.

If the sentient powers of the brain be disturbed, occasioning general irritation of the nerves, a quick pulse, disturbed sleep, delirium, and, during the intervals of the fit, an irritative fever, in which case it is termed *remittent* fever, a blister to the nape of the neck, and the application of cold water to the head twice a day, will also be proper.

Numerous instances of the influence of the passions on this disease have been published. In many parts of this country remedies of no medical efficacy whatever, but of that odious and disgusting nature which is calculated to make a strong impression upon the senses, — as live spiders, swallowed in that state, a dried toad worn in the bosom, — are still employed with success, as well as charms, with ceremonious pomp and affectation of mystery.

The young practitioner should be careful that he does not confound intermittent or remittent fever with the rigours or shivering which precede inflammatory fever, local inflammation, or suppuration. Pulmonary consumption is also generally attended with a fever of the intermittent type, in which Peruvian bark or rhatany root would prove injurious. The hasty exhibition of tonic remedies in cases of rigours, preceding pleurisy or inflammation of the lungs, has been productive of very serious mischief. If there be any doubt with respect to the nature of the fever, it will be prudent to postpone the use of a tonic medicine till its character be satisfactorily marked.

Practical Remarks. — By the foregoing account of ague, it appears, that, notwithstanding the violence of the hot stage, it is a disease of debility; that the best remedy is the Peruvian bark or rhatany root; and that in consequence of the viscera being disordered by the violence of the fever, and thereby rendered more obstinate, these remedies should be administered in full doses on its first attack; that the state of the bowels should be attentively watched; that a little calomel, by preventing or removing obstruction of the liver, &c. is very useful; that when the liver is disordered, and in a state of excitement, a blister over its region is necessary; that when the nervous system is disturbed (keeping up a degree of irritative fever during the intervals of the paroxysm), the application of cold water to the head, and a blister between the shoulders, are also necessary; that arsenic should not be employed but in cases that resist the powers of the bark, and the other remedies specified, particularly the sulphate of quinine; that the mind should be supported, and, with this view, charms or whimsical remedies may be countenanced.

OF APOPLEXY. An apoplectic fit consists in a sudden deprivation of all the senses and of voluntary motion, generally in consequence of compression of the brain; which, when produced by an effusion of blood, or a distention of the internal vessels of the head, from an accumulation of *blood*, is termed *Sanguineous* Apoplexy; and when occasioned by an effusion of *serum*, which occurs chiefly in dropsical habits, *Serous* Apoplexy.

OF THE SANGUINEOUS APOPLEXY.—This disease seldom occurs before the age of forty-five. The short-necked, the indolent, and such as are apt to indulge in full meals of animal food, and the free use of spirituous and vinous liquors, are generally its victims. Its frequent occurrence in this country is attributed to the great consumption of animal food and spirituous liquors, with a sedentary life.

SYMPTOMS.—With the loss of the senses and *voluntary* motion, there is in this disease an *appearance* of *profound* and *continual* sleep, with snorting and laborious breathing. The pulse is languid, while the arteries of the *head* and *neck* beat with an increased force; the face is red and bloated; the neck swelled, by distention of the vessels, and the pupils of the eyes dilated. Although the *whole* of the body is affected with a loss of sense and motion, one side generally exhibits a greater deficiency of vitality than the other.

An Apoplectic fit is generally preceded by a sense of weight in the head, and giddiness; frequent head-ache; bleeding at the nose; redness of the eyes; imperfect vision; a noise in the ears, like the ringing of bells at a distance, or the boiling of a tea-kettle; a transitory degree of numbness in the extremities; weakness of the knees; faltering of the voice; impaired memory; drowsiness, particularly after dinner; and disturbed sleep. These affections occurring in a person of a plethoric habit and short neck, may be considered *premonitory* symptoms.

CAUSES.—The chief cause of this species of apoplexy is a plethoric habit of body, with an over-distended state of the vessels which convey blood *from* the brain. It is sometimes brought on by whatever hurries the circulation, so as to increase the *afflux* of blood into the vessels of the head*; such as *violent* exercise;

* The velocity of the influx of blood into the vessels of the brain is considerably checked by the *tortuous* course of the arteries by which it is conveyed; and the resistance afforded by the long bony canal through which the internal carotid artery passes; the impetus of the blood to the brain must, of course, be influenced by the *angle* these vessels make, which has been found to vary in different subjects. The direction of the canal, I believe, to be a frequent cause of apoplexy and other affections of the brain.

passions of the mind*; intoxication†; much straining; but it is more frequently occasioned by whatever impedes the *free return* of blood from the head; as a tight ligature or handkerchief round the neck; stooping down, or lying with the head lower than the chest; looking behind, or upwards, for some time.

In elderly people, apoplexy is frequently the consequence of over-distention of the veins and venous sinuses of the brain, in consequence of a diminution of the power by which the blood is returned from the head, which is dependent on arterial action. In such cases the venous system being generally overloaded, and the arterial system in an opposite state, abstraction of blood by cupping (which is chiefly from arteries) is improper. In this variety blood should be taken from the external jugular vein.

It is a curious fact, that when the patient is not cut off at once, but lives for some time after the attack, the palsy of one side of the body, which generally follows an apoplectic fit, most frequently happens on the *opposite* side to *that* of the brain in which the effusion of blood has taken place; *i. e.* if the *right* side of the brain be compressed, it will paralyse the *left* side of the body, and *vice versâ*; hence it often happens, that if a person lose the use of his *right* side by compression of the *left* portion of the brain, the *right* eye will not be affected, while the power of vision of the *left* will be nearly destroyed.

It is very common, on examining the brains of persons far advanced in life, to find the coats of arteries in a diseased state. There is often a bony or earthy matter deposited in the coats of the greater, and sometimes lesser, arteries of the brain‡, by which they lose a part of their *contractile* and *distensile powers*. The vessels of the brain, under such circumstances, are much more liable to be overloaded and ruptured than in a healthy state. Whenever blood is accumulated in *unusual quantity*, or the circulation carried on with *unusual vigour*, diseased vessels are very liable to this accident; and accordingly, in either of these states, rupture of their coats most frequently happens.

TREATMENT.—The *first*, and indeed the *principal* object to

* Anger and fear, although opposite passions, are enumerated by Van Swieton as *frequent* causes of apoplexy.

† When sudden death takes place during drunkenness, it is by producing apoplexy. Among persons in the habit of drinking, fatal apoplexy is frequent. "This disease," observes Dr. Trotter, "being so frequent an attendant on, or a consequence of, excessive drinking, holds up a most awful warning to the inebriate." The idea of a human being rushing into eternity from a board of gluttony, riot, and intemperance, one would suppose sufficient to appal the most depraved and obdurate of mortals.

‡ This diseased state of the blood-vessels of the head is, no doubt, often the cause of obstinate head-ache, lethargy, epileptic fits, and other nervous diseases in *elderly* people.

accomplish towards the recovery of a person in an apoplectic fit, is to unload the vessels of the head, by abstraction of blood from the jugular vein or a vein of an arm.* If the disease be produced by distention of vessels only, this will almost immediately afford considerable relief, and if this effect does not follow, we may conclude that an effusion of blood has taken place in the brain. Blisters should likewise be applied to the head†, and between the shoulders. The next object is, to *lessen the determination* of blood *to the head*, by increasing the circulation in the extremities, which is most effectually done by stimulating the feet and hands with the Mustard Poultice, and by emptying the lower intestines, by administering the purgative clyster A, page 103. Fifteen grains of the compound extract of bitter apple dissolved in peppermint-water, may also be exhibited; or, if the patient cannot swallow, a drop or two of Croton oil may be introduced into the mouth, which, in the course of an hour or two, generally produces copious fæcal evacuations. — (*See* CROTON OIL, page 154.) — The body should be kept in nearly an erect posture, and the head supported in that situation, to favour the return of blood from the head. The *sooner* these measures are put in execution, the greater will be the probability of success. It has been a question much agitated of late, whether the exhibition of an emetic be proper on the *first* attack of apoplexy. The action of the arteries of the head being greatly excited during vomiting, an impetus is probably given to the circulation in the sinuses, so that instead of increasing the venous plethora of the brain, it may be the means of removing it. Certain it is, that vomiting, which often occurs on the commence-

* Some practitioners recommend blood to be taken from the temporal artery. The distention being of the vessels containing venous blood, and not of the arteries, no advantage can arise from it. If the veins become overloaded, in consequence of weakness of the arteries, which is very frequently the case in elderly people, the extraction of arterial blood would prove very hurtful. In young subjects, arterial plethora prevails, and in them the extraction of arterial blood is most beneficial; but elderly people are subject to venous plenitude, often to such a degree as to oppress the heart. In such cases, the extraction of blood from a vein seems to take a weight off the springs of life. On the contrary, if blood be taken from the temporal artery, the power of the heart and arteries to propel the blood through the venous sinuses will be so far reduced as to terminate life. Hence apoplexy often suddenly terminates fatally after opening the temporal artery; and in no case have I known it to prove beneficial. Arterial blood being chiefly abstracted by the operation termed cupping, it is also improper. — (*See* EVACUANTS, page 32. and ABSTRACTION of BLOOD by LEECHES, page 187.)

† If the compression of brain be occasioned by an effusion of blood, it is of great consequence, after unloading the system, to prolong the life of the patient in order that there may be time for the absorption of the effused blood; and with this view, the discharge and irritation of the blister of the scalp should be kept up.

ment of apoplexy, is generally beneficial. When it is evidently an operation of nature, and clearly affords relief to the brain, i should be promoted by warm camomile tea. Although it i generally right to imitate nature in her operations, to excit vomiting by medicine during an apoplectic fit is too bold a prac tice to adopt without the sanction of an experienced practitioner — (*See* the effects of an EMETIC, in equalising the circulation, i case of apoplexy, or local congestion, pages 27—30.)

If the apoplectic fit be *clearly* produced by *excessive* drinking the contents of the stomach should be diluted by drenching th patient with warm water. Vomiting in this case is always c great service. — (*See* Treatment of the DRUNKEN PAROXYSM page 181.)

PREVENTION. — It is a common practice to administer a littl brandy, or some other spirituous cordial, on the first attack of a apoplectic fit; and this has generally the effect of rousing th patient, and not unfrequently of removing every apoplecti symptom, probably by increasing the action of the heart an arteries so as to propel the blood through the distended sinuses In this respect its effects are the same as those produced b vomiting. The practice is condemned by practitioners, who at tribute the congestion of the vessels of the brain to an increase afflux of blood to the brain, instead of languid circulation, o diminution of that power by which the blood is returned from th brain. A person disposed to apoplexy, or who has experience an attack, should be particular in keeping the feet dry and warm by wearing flannel socks, and the use of the horse-hair sole He should guard against fulness by moderate exercise and ab stemious diet. He should sleep with the head higher than th trunk, but not bent forward on the chest, the elevation bein *gradual* from the feet to the head. When affected with th *premonitory* symptoms, noticed page 273, a brisk purge of th Aperient Pill, page 89, a blister to the nape of the neck or head and putting the feet in warm water, will often obviate an attack The Asarabacca snuff, noticed page 158, by increasing the se cretion of the nostrils, and producing sneezing, provided it doe not occasion giddiness, or in any way disorder the head, wil likewise prove serviceable. General blood-letting having a tend ency afterwards to produce plethora, should only be practise when apoplexy is *immediately* threatened; the application o leeches to the temples will often supersede its necessity. A se ton or issue in the nape of the neck, and the occasional use of th aperient, page 89, by obviating congestion of the vessels of th brain, are the most powerful preventives. It would also b advisable to have the head shaved, and to wash it with cold water every morning. The application of cold water to th

scalp, by means of a napkin, for five minutes, once or twice a day, will not only check the determination of blood to the head, but, by strengthening the vessels of the brain, and allaying morbid irritation of that organ, will prevent turgescence. An overloaded state of the blood-vessels of the brain often arising from a diminution of power by which the blood is propelled through the veins, a reclining posture, and much sleep, are most powerful predisposing causes. By a strict observance of these rules, a paroxysm of apoplexy may be kept off for a great length of time, however predisposed the person may be to the disease.

Distinction. — Apoplexy may be distinguished from profound sleep, which it much resembles, by applying the smelling salt, or sal volatile, to the nostrils, which will immediately rouse a sleeping, but will have no effect on an apoplectic person; and from a fit of intoxication, by the *paleness* of the face, the *smell* of the breath, and the *manner of living*; from epilepsy, by the stertoreous breathing, diminution of the power of volition, and *absence* of convulsions. It is often extremely difficult to distinguish the insensible state that *follows* an epileptic fit from apoplexy; particularly as an apoplectic paroxysm is sometimes preceded by a violent convulsion, foaming at the mouth, grinding the teeth, and other convulsive motions of the body; but a knowledge of the *habits* and *constitution* of the patient will, in general, enable a practitioner to determine the comatose state after epilepsy from apoplexy. The *state* of the pulse and respiration, and the *paleness* of the face in fainting or swooning, will distinguish it from such complaints. In my late treatise on the varieties of costiveness, and means of regulating the stomach and bowels, I have given a chapter on the management of the bowels of those who are predisposed to apoplexy, and also particular instructions for diet, &c. &c.

Of Serous Apoplexy. — Compression of the brain, producing apoplexy, is very seldom occasioned by an effusion of the *serous* part of the blood. When apoplexy occurs in a dropsical person, it may be referred to an effusion of serum, which for its removal will require the means suggested for the cure of sanguineous apoplexy, except blood-letting.* Cordials, which in the sanguineous apoplexy are not allowed, are in this case very pro-

* Abstraction of blood has long been recommended by some writers in cases of serous apoplexy, and a few instances have been published, in which it evidently proved very beneficial; but the sanguiferous system was overloaden in each case, and the effusion of serum was the consequence of increased arterial action.

In one case of serous apoplexy which occurred at the Hereford Infirmary, spontaneous bleeding from the nose saved the life of the patient, although he had for some months been afflicted with general dropsy.

per. When the consequence of extreme debility of the system, there is generally effusion of serum in the chest, and also frequently in the abdomen, when it almost uniformly terminates in death.

Another species of apoplexy, I am well persuaded, often occurs from wasting, or diminution of the substance of the brain which occurs in elderly subjects. In this case, the venous sinuses become over-distended with blood, for the purpose of filling the skull, in consequence of its bones not collapsing. The atrophy of brain increasing, a blood-vessel at length gives way, and produces apoplexy. This disease may be distinguished from the plethoric apoplexy, by its being preceded for many months, and sometimes years, by general debility, both of body and mind. The subject has also a long neck, and is much emaciated. In this case it is clear the loss of blood would be highly improper. A generous diet, the moderate use of wine, and the use of a cordial stomachic medicine, as the Nervous Mixture (D), page 118, are most likely to prevent this species of apoplexy.

Practical Remarks. — Apoplexy in elderly people is produced by compression of the brain, either by considerable distention of the venous sinuses, or an effusion of blood or of serum. In people far advanced in life, it is more frequently, if not always, the consequence of a diminution of the power of returning blood from the brain, than of an increased determination of blood to the head. The most active remedies should be promptly employed to lessen the quantity of blood in the venous system, and to increase its circulation in the extremities. If the cause be over-distention of blood-vessels without effusion, the patient is so much relieved by the loss of blood, as to become sensible in a few minutes; and if this effect do not follow the operation, there can be no doubt but that effusion has taken place; in which case, a perpetual blister should be applied to the scalp, and a stimulating poultice to the feet, and by the exhibition of nutrient and stimulating clysters. When the effusion is evidently serum, which may be known by the body being dropsical, and by its coming on gradually, bleeding is a very doubtful remedy, and should be employed only under the direction of an able practitioner. Apoplexy generally terminating fatally, or by leaving the patient in a very impaired state of health, the preventive means should be carefully observed. When apoplexy occurs in a debilitated subject of a long neck and emaciated body, and particularly when the mental faculties have been gradually declining, the fit may be the consequence of wasting of the substance of the brain, in which case, the skull not having the power of collapsing, the blood-vessels of the brain are distended to fill up the cavity, till, at length, a vessel not admitting

of further distention gives way, and effusion of its contents ensues, which generally destroys life in a few minutes.

OF ASTHMA. — When this disease is attended with expectoration, or discharge of phlegm from the lungs, it is termed *humoral asthma;* and when there is no such discharge, it is named *dry asthma.* Other species are enumerated by authors, but the real difference of asthma arises chiefly from difference of constitution. The constitution of asthmatics exhibits certain peculiarities, in a high degree similar to hypochondriasis. This is often so very remarkable, that what will excite the disease in one patient, will often prove a means of relieving it in another. This peculiarity is particularly shown in the eighth pair of nerves, branches of which go to the lungs and stomach. When these branches are in a state of morbid excitement or irritation, the muscles concerned in conveying air from the lungs, become contracted so as to limit the expansion of the chest, and by retarding the circulation of the blood through the lungs, the blood becomes surcharged with carbon, occasioning a dark appearance of the lips, &c.

In a person predisposed to asthma, there are two classes of causes, which excite the paroxysm or asthmatic fit.

The first are those which disturb the nervous system in general; as passions of the mind, abuse of spirituous liquors, &c.

The second are those which act locally; as a heavy or irritating air.

When the patient is of a delicate or tender structure, the sanguiferous system over-loaded, or the subject advanced in years, there is generally more or less of expectoration during the daytime. In such patients, the paroxysm, or fit, does not run high, in consequence of the secretion of mucus keeping down the morbid irritation of the internal membrane of the windpipe, &c. but in a subject, whose constitution is more nervous than inflammatory, and the fibres rigid, the membrane secretes little or no mucus; and the paroxysm, or fit, is in consequence more violent. But in both these different situations, the state of the atmospheric air makes a considerable diversity on the character of the malady; for in summer the asthma of some patients will be humoral, and in winter dry. Hence it is the state of constitution and atmosphere that actually determines the disease.

Asthma is, in its appearance and symptoms, a disease so well marked, that it is unnecessary to notice its phenomena and mode of attack. The more or less sudden appearance of a fit, its recurrence at stated intervals, and the intervening suspension or alleviation of its violence, sufficiently characterise the malady. Sometimes, however, the difficulty of breathing continues throughout the day, with an exacerbation during night.

On dissection, the morbid appearances in asthma are similar to those of the consumption of elderly people, except that there is, here, a greater extent of ossification of arteries. The death of an asthmatic is sometimes produced by apoplexy, in consequence of the over-distention of the vessels of the brain during the great impediment, or obstruction, to the return of blood from the head, that takes place in the course of the fit.

TREATMENT. — With trading physicians, the varieties of remedies for the cure of asthma are as numerous as the species into which they divide the disease: they have their hosts of expectorants, of emmenagogues, chologogues, diaphoretics, relaxants, tonics, &c. &c.; but these are a mere list of inefficient names on which a peal is to be rung, to entitle them to the ultimate consideration of the case — a fee.

In the treatment of asthma, there are two objects in view; viz. to abate the violence of the paroxysm, and to produce a state of system which will not tend to aggravate or keep up the local irritation.

With respect to the treatment of a paroxysm of asthma in a young or plethoric subject, the first step is to unload the blood-vessels, which is best effected by opening a vein in the arm; for the operation of cupping on the chest, by exciting irritation in the cuticular nerves, is often hurtful. An active purge is generally of service; and, with these means, the warm or the vapour bath on Thompson's plan (see page 227) may be employed.

When the system is quieted by these means, the anti-asthmatic draught, page 106, may be taken two or three times a day; and when the disease has considerably given way, the anti-spasmodic mixture (A or B) page 109, may be substituted for it. If, notwithstanding these remedies, a paroxysm or considerable difficulty of breathing should occur in the evening, the prepared stramonium may be smoked on its commencement, or the vapour of the decoction of stramonium, or of the hop *, inhaled by means of Read's improved inhaler, described page 225.

During the asthmatic paroxysm, the inhalation of this vapour is always very efficacious, when the degree of irritation will admit of its being employed. When judiciously administered, it is an excellent remedy, and perfectly innocent. It wonderfully allays the local morbid excitement; and the caloric which is taken with it, during the operation of smoking, powerfully promotes the secretion of mucus, and thus often speedily terminates the fit. The herb for smoking should not be perfectly dry; for when the smoke is not sufficiently humid, a proper proportion of the

* This decoction should be made in a close vessel, and taken off the fire as soon as it begins to boil; for by long boiling its volatile parts, which are serviceable in asthma, are dissipated.

anodyne quality is not inhaled, and from the absence of it the matter of heat often increases the irritation. When employed with a view of preventing or palliating the paroxysm, the patient should begin to smoke it about an hour before the usual time of the recurrence of the asthmatic fit; and in all cases this is the best period, as very few can employ it when the fit runs high. If the mode of using the herb by smoking be unpleasant, which is generally the case to females, the vapours of a strong decoction of it (made by boiling an ounce in a pint of water) may be inhaled.

The warm vapour bath, slightly impregnated with cicuta, or the chœnopodium botrys, or tar, (by putting a little into the boiler,) employed two or three hours before the usual period of accession, will often prevent the recurrence of a fit. Whatever tends to quiet the nervous system, is of the greatest service; but such is the peculiarity of this system in asthmatic subjects, that active remedies should be employed with great caution. In many instances washing the head with warm water (on the principle of producing a conducting surface) has been of wonderful service; and, in other cases, sneezing, produced by the asarabacca snuff, has suddenly terminated the paroxysm.

All asthmatics are very subject to an accumulation of gas in the stomach and intestines, which renders the occasional use of an aperient medicine necessary; distention of the stomach or intestines from any cause, being a source of great distress to the patient, by mechanically preventing the free motion of the diaphragm. For the purpose of unloading the intestinal canal, the purgative pills (A or B) page 117, may be administered once or twice a week.

When fulness of blood-vessels does not prevail, and the body is evidently in a state of debility or relaxation, the object is to raise the system to a standard of health, as directed under the head of indigestion; on doing which the local irritation generally subsides. In this case, inhaling the fume which escapes during smoking a composition of equal parts of the dried hops and hedge-hyssop, about twice a day, has proved very beneficial by promoting expectoration and allaying morbid irritation of the membrane lining the air vessels.

To hasten the termination of the paroxysm, rubbing the scalp with camphorated sal volatile, and immersing the feet in warm water, are often useful. If the smell of the camphorated liniment be disagreeable, warm water may be applied to the head, which should afterwards be covered with flannel. The asarabacca snuff, by rousing the energy of the brain, will prove a powerful auxiliary in terminating the paroxysm.

In this species of asthma, the hedge-hyssop should be combined with a tonic medicine, as the liverwort or rhatany root, according to the degree of debility, in the following proportion; three table-spoonsful of which may be taken two or three times a day:

Take of the Oxymel of Hedge-hyssop,		3 ounces.
Decoction of Cascarilla,	-	6 ounces.

Mix.

Vomiting excited in the evening, will sometimes, by unloading the stomach, promoting expectoration, equalising the circulation, and increasing perspiration, prevent the accession of a paroxysm. For this purpose, the following draught may be administered:

Take of Ipecacuan Powder,	- -	15 grains.
Sulphate of Zinc,	- -	4 grains.
Oxymel of Squill,	- -	2 drachms.
Peppermint-water,	- -	1 ounce.

Mix.

The application of Burgundy-pitch plaster or blister to the chest I have never found beneficial in this variety of asthma; but, in a great number of cases, they have aggravated the complaint; the former increasing the difficulty of breathing, and the latter increasing the general nervousness.

Cold bathing sometimes succeeds in keeping off a paroxysm; but it is only in its early stage; for when the legs swell, and the patient is much reduced, it is evidently hurtful. Sea-bathing is of as little avail; and in many instances, it has brought on the most distressing and long-continued paroxysms. The warm vapour bath, to one hundred and ten degrees, is generally serviceable.

When the system is much debilitated, or swelling of the legs, great oppression of breathing, and bloated countenance appear (indicative of the system giving way to the malady), a powerful tonic combined with a diuretic medicine, as the tonic mixture (B) page 115, should be administered.

The bowels should be kept open by the following pills:

Take of Compound Colocynth Pill,	-	1 drachm.
Prepared Calomel,	- -	10 grains.
Venice Turpentine,	- - -	1 scruple.

Mix; and divide into fifteen pills, of which three may be taken occasionally.

But if, on the contrary, the patient should be affected with diarrhœa, a frequent attendant on the last stage of this malady, the following may be substituted for the preceding tonic mixture:—

Take of Compound Tincture of Rhatany,	-	1 ounce.
Lime-water,	- - -	6 ounces.
Laudanum,	- - -	30 drops.

Mix; three table-spoonsful to be taken every three hours, with three grains of the Prepared Steel, made into a pill with Conserve of Hips.

If this mixture should not sufficiently restrain the affection of the bowels, six ounces of the white decoction, or chalk mixture, may be substituted for the lime-water.

In the last stage of asthma, or when the system is apparently breaking up, when the pulse is oppressed, and the veins over-distended, the extraction of a few ounces of blood from a vein will afford great relief. In elderly persons the venous system is often overloaded, while the arterial system is in an opposite state. In such case the loss of blood from a vein is often highly useful. It seems to give fresh vigour and energy to the body, and the effused serum, in consequence of this renovated state, is often absorbed, the secretion of urine increased, and, indeed, the different secreting organs are set at work. Hence, spontaneous bleeding from the nose has proved highly beneficial. This practice, however, in cases of extreme debility is to be considered a bold one, and should never be carried beyond five or six ounces. — (*See* Effects of the different Modes of ABSTRACTING BLOOD, p. 188.)

When the legs are much swelled, a small blister, a little larger than a crown-piece, may be applied to the inside of each, after rubbing a little mercurial ointment over the spot and around it, to the extent of about three inches. The discharge of serum, when continued, is very considerable, and never fails to afford most essential relief. Some object to blisters, as being apt to produce mortification; but I have never known small ones to have such an effect, after the mercurial ointment had been employed as above directed, and continued every night. When the breath is oppressed by an effusion of serum in the chest, I have known blisters applied to the legs to afford the most marked benefit.

The galvanic fluid applied in the course of the spine, the 8th pair of nerves, and over the region of the liver, has been highly extolled as a remedy for asthma. I have met with several cases of asthma in which it had been freely used, in all of which it failed to produce any salutary effect whatever.

In every stage of asthma, in weakly subjects, the diet should consist chiefly of animal food: the only vegetable matter that seems to agree here, is bread. The flesh of young animals is the easiest of digestion; in the dressing of which the patient may be directed by his own taste: in general, meat under-done agrees best with the stomach. The outside of roasted meat generally disorders the stomachs of asthmatics.

A vegetable diet would appear to be indicated in this species of asthma, as tending more to quiet the system than any other; but asthmatics are very rarely benefited by such a restriction; the quantity required to be taken, in order to convey sufficient

nourishment, occasioning an over-distention of the stomach, a feeling of oppression, in consequence, ensues from the quantity alone, independent of the gas disengaged during the process of digestion, which accumulates in the intestinal canal, and increases the evil. Green vegetables are, above all, particularly hurtful; and of all vegetable productions, bread and the mealy potatoe agree best. If the state of constitution particularly require a vegetable regimen, it will be advisable to adopt the most nutritious and less bulky form, as the jellies of arrow-root, sago, tapioca, &c. But on the subject of diet, it may be observed, that though rules are laid down, much must be conceded to the taste of the patient. With some I have found veal, however tender and easily digestible, to disagree with the bowels, and to act in a violent degree, and roasted pork to disorder the stomach. — (*See* Remarks on DIET, page 200.)

In respect to beverage, water is of all others the best; and should an aromatic be necessary, a little Jamaica ginger, finely ground, is preferable to any other, which may be taken in it. This will be sufficient to correct flatulence; and the system will not be disturbed by the pure element as by wine or brandy. Some asthmatics are considerably benefited by good sound bottled ale, the fixed air and the hop-bitter not only quieting the stomach, but the whole nervous system, and during its use, continue free from any oppression about the chest, except during foggy weather, or the prevalence of an easterly wind, whilst others experience considerable inconvenience from it. Wine and spirituous liquors often afford a temporary relief; but when taken to an extent as to raise the spirits, they leave a proportionate depression, and an increased nervous state. In the far advanced stage a cordial beverage is, however, frequently necessary; in which case gin or brandy, diluted with water, is the best.

For breakfast, and the evening repast, the cocoa of the sassafras-tea is superior to any other article. This production is not only lighter than common cocoa, but, being slightly impregnated with the aromatic quality of sassafras, it sits on the stomach very pleasantly, and is a powerful preventive of flatulence. It is prepared for use in the usual manner of common cocoa. An account of this article is given in page 157.

The quality of the air is of the greatest importance to asthmatic patients; and the peculiarity of temperaments and habits often require an opposite regulation in this respect. To some, the application of cold fresh air, during the paroxysm, is absolutely necessary; while the feelings of others are best relieved by a situation near the fire-side: but in all asthmatic cases, it is necessary that the patient should be protected from an easterly

wind. In general, too light air disagrees with patients under this disease: hence elevated situations are found hurtful. But such is the variable nature of the malady, that some cannot breathe in a light air, while others feel equal inconvenience in a condensed atmosphere. An uniform pure air is required by some, while the air mixed with the carbonic acid gas from a lime-kiln, or from burning coke, is more grateful to others. Some again are greatly relieved by being placed near a fire of coal or wood, and experience a sensation of suffocation when coke is used in lieu of coal or wood. The sea air is often prejudicial, even independent of its temperature.

In this disease, walking and sailing have been much recommended as exercise; riding on horseback is, perhaps, most salutary, as the viscera are exercised by it, and the nervous system quieted by the pleasant occupation of the mind, in managing or guiding the horse, &c.

In regard to clothing, flannel next the skin is proper during winter: but in summer it tends to relax the body, and render the nervous system more irritable; it should, therefore, in this season, be changed for cotton. The chamois leather has been much recommended as a substitute for flannel, to be worn next the skin, in cases of asthma; but in consequence of its absorbing the sensible perspiration, and becoming cold on taking rest after a little exertion, it does not act so beneficially as fine flannel.

In asthmatic cases, the state of the mind is one great and leading consideration. Mental perturbation I have already observed is, in itself, often an exciting cause of the disease, and never fails to aggravate, or prolong, the paroxysm; the patient, therefore, should be indulged in his particular fancy, or prepossession. The mind is here extremely irritable, and the least opposition or restraint often produces very depressing effects.

Prevention. — Flannel next the skin, the occasional use of an emetic of ipecacuan powder, the oxymel or lozenge of squill, and an issue between the shoulders, or in the arm, will often succeed in preventing, and never fail to abate the violence of a paroxysm of asthma, or to relieve the breathing during its absence in young or plethoric subjects. The diet should consist of broth, light puddings, fowl, veal, and other articles of tender fibres; and a little ginger used in the beverage, to obviate the flatulent effects of vegetables. Good old perry or cider, when it agrees with the stomach, is a proper beverage.

Asthmatic people, in consequence of peculiarity of the nervous system, being differently affected by the atmosphere, they must consult their own feelings as to the place in which they should reside. A spacious room should *always* be preferred. When the breathing is very difficult, oxygen, or the vapour of tar, gra-

dually diffused throughout the air of the room, generally affords great relief, and will often prevent a paroxysm. The odour or gas which escape from flowers or plants during night, being very apt to aggravate the difficulty of breathing, they should be kept in the bed-room only during the day-time.

DISTINCTION. — Asthma may be distinguished from inflammation of the lungs and pleurisy, by being *chronic*, unattended with *acute* pain or *stitches* in the chest, and being free from fever. The returning of the paroxysms *at intervals*, the sense of constriction about the chest, occasioning the patient to get into an erect posture, and to fly for relief to the cold air, will distinguish asthma from other diseases of the lungs.

Practical Remarks. — By the foregoing article on asthma, it appears that the disease is dependant on morbid irritation of the nerves of the lungs; that whatever disturbs the general health is capable of bringing it into action; that the treatment must be varied according to the state of the constitution; *i. e.* when plethora prevails, bleeding, and such remedies as are calculated to reduce the strength of the system, are proper; but when the system is in a debilitated state, strengthening means are to be employed. The sufferings of all asthmatics being increased by distention of the bowels, the state of the stomach and intestines should be particularly attended to. That the most efficacious remedy for allaying morbid irritation of the nerves of the lungs is the anti-asthmatic draught, page 106. That opium, by checking expectoration, constipating the bowels, and disturbing the general health, is generally hurtful. That when extreme debility prevails, the system must be supported by a generous diet, and the use of cordials.

OF BARRENNESS. — There are several causes of barrenness, which, from their peculiar delicacy, cannot be noticed in a work of this kind.* Disease of the ova, injury sustained by frequent miscarriages, general debility of the system, irregularity in the menstrual secretion, and morbid irritability of the womb, are its most frequent causes.

Whatever be the cause, all that art can do is to improve the state of the general health, and to remove local obstruction or morbid irritability. With the former view, the patient may take ALTERATIVE PILLS, p. 116, and the NERVOUS MIXTURE (D), p. 113. If acidity prevail in the stomach, two drachms of prepared soda may be added to the mixture. In case the bowels should not be sufficiently relieved every day, one or two of the APERIENT PILLS, p. 117, may be taken every or every other

* Those who wish to be acquainted with the different causes, &c. of barrenness, the author refers to the Supplement to the 55d Number of the Monthly Gazette of Health, and a Practical Treatise on the Buchu Leaves, by the author of this work.

night, according to their aperient effects. After the alterative pills have been discontinued a week, cold bathing will prove beneficial. In case the patient be affected with fluor albus, the same topical management will be necessary as directed for that disease.

The same rules as are given in cases of indigestion with respect to diet and exercise should be strictly attended to by the barren lady.

If the cause be either general debility, irregularity of the menstrual evacuation, or an unhealthy state of the womb or ova, this treatment may succeed. When a mechanical cause exists, such as tumours or contractions, surgical aid will be necessary.

Anxiety and fretfulness, by increasing the general irritation of the nervous system, are very inimical to breeding.

In sanguiferous habits, an overloaded state of the sanguiferous system is a very common cause of barrenness. In such a case, the system should be reduced by occasional abstraction of blood by leeches (applied to the part to which there may be a determination), an aperient diet, low diet, and exercise. It is worthy of notice, that when a female, between the ages of 25 to 35, is improving in health after a fever, salivation, continued diarrhœa, or hæmorrhage, she is very apt to become pregnant.

Practical Remarks. — The cause of sterility is generally with the female. The common impediments to breeding are, diseased state of the ova or womb, morbid irritation of the vagina, and general nervousness and relaxation. All that art can do to prepare the female for breeding is to keep the system in a state of health, and, if she be of a languid or leucophlegmatic habit, occasionally to invigorate it, or raise it above the natural standard by mild cordials. — (*See* IMPOTENCE, in my Treatise on the Buchu Leaves).

OF BILIOUS COMPLAINTS. — Of late it has been a fashion to attribute a variety of disorders, particularly of the digestive organs, and of the head, to a redundancy of bile in the stomach; an idea evidently founded in error, and first broached by designing quacks, in order more successfully to impose their *antibilious* specifics on the credulous and ignorant. It is a common practice to have recourse to an emetic for the purpose of relieving the stomach of an accumulation of bile; and the liver and duodenum being compressed by the action of the abdominal muscles during its operation, a quantity of bile is forced into the stomach, which, on being brought up, induces the person to suppose that his idea was correct. The matter, however, *first* vomited being acid, is an indisputable proof that at the time of taking the emetic there was no bile in the stomach. The bile is also the *last* thing ejected. The advantage, therefore, arising

from an emetic in such cases, is not from bringing up bile from the stomach, but by producing a greater flow of it into the intestines, rousing the action of the liver, and cleansing the stomach of slime and acid matter. In cases of indigestion there is generally a *deficiency* of bile, through a sluggish state of the liver; yet it is very common for such patients to complain of an excessive collection of it in the stomach.

The liver being the largest viscus in the animal body, it is fair to conclude that its office in the animal economy is important. The body is constantly undergoing a mutation. The meals we daily take are by the powers of the stomach converted into chyme, from which chyle is formed in the duodenum, for the nourishment of the body. The old particles taken up by the absorbent vessels are also conveyed to the mass of blood; and hence it will appear obvious that a deterger of the blood, or some organ, is necessary to purify the blood. For this purpose the liver and the colon appear to be the principal organs, and as such the office of the liver is certainly an important one. Hence we may account for the salutary effects of medicines which increase the action of the liver in diseases of the skin; and many local, as well as constitutional disorders, which were very correctly attributed by the ancients to foulness of the blood, a doctrine ridiculed by the moderns, whose theories are founded on hypotheses instead of facts. Some late authors suppose that the bile promotes the digestion of the food; but if this were its use, it would be emptied into the stomach; instead of which, the duct, which conveys it from the liver, terminates in the upper part of the intestinal canal, termed *duodenum*. We also find, that when the bile is forced into the stomach by vomiting, or when it is excessive, as in cholera morbus, it disorders the stomach, and produces the most distressing nausea and vomiting.

Dr. Dick, who obtained great celebrity for the successful treatment of chronic affections of the liver, during a long residence in the East Indies, and latterly in this country, was in the habit of recommending and taking a pill, which appears to be chiefly composed of colocynth, scammony, and juniper, as the best remedy for those affections of the stomach and intestines attended with an indolent state of the liver, which in this country are termed *bilious*. This composition, he observes, not only removes superabundant slime and matter from the stomach and intestines, but rouses the action of the liver and kidneys. These pills, which I have certainly found very beneficial, are sold under the name of the Bengal purgative pills. — (*See* APERIENT PILLS, p. 89, and STOMACHIC MIXTURE (A), p. 114.)

In nervous subjects, whose constitutions had suffered from mercury, the alcaline tincture of Fumitory, in the dose of two tea-

spoonsful twice a day in a glass of water, has proved very beneficial. — (*See* STOMACHIC MIXTURE (C), p. 114., and INDIGESTION.)

OF BLEEDING AT THE NOSE. — A spontaneous discharge of blood from the nose, in young people, arises from a plethoric state of the *arteries;* and in people far advanced in life, from plenitude of the *veins.* The discharge of blood from the nose, which is generally confined to one nostril, occurs for the most part in warm weather, and is generally preceded by head-ache, redness of the face and eyes, noise in the ears, giddiness, frightful dreams, coldness of the extremities, &c.

TREATMENT. — In a case of spontaneous bleeding of the nose, the first point to determine is, whether it be of a salutary nature, which, in cases of ambiguous fever, is often extremely difficult. I have known fevers, pronounced by physicians of eminence to be putrid, suddenly terminated by a discharge of blood from the nostrils, which at the time it happened was considered a most unfortunate occurrence. If it be preceded either by head-ache, giddiness, redness of the eyes, or disturbed sleep, or if occasioned by the violence of hooping-cough, or during labour, it may be considered of a salutary nature, and an indication for the adoption of medicines and diet which tend to unload and quiet the system. In young people, it is scarcely worth notice, unless the discharge be so profuse as to weaken the body. If it arise from plethora, and the system be not sufficiently unloaded by the evacuation from the nose, the loss of blood from the arm will be proper, as well as the occasional use of the Aperient Mixture, p. 111., or the Epsom salt. After due evacuations from the bowels, the Diuretic Powder, p. 119., may be taken two or three times a day in *cold* water. Vinegar, diluted with water, should also be applied *cold* to the nostrils. If these means fail to check the bleeding, a dossil of lint, moistened with vinegar, a strong solution of alum, or tincture of kino, may be introduced up the nostril, which, by *coagulating* the blood, and *compressing* the ruptured vessel, generally succeeds, if properly managed. The person should be kept in an erect posture, and exposed to a *cold* air, and every thing carefully avoided that is likely to irritate the part, such as blowing the nose, speaking, &c. The diet should be *low*, and *taken cold*, and the extremities kept warm. If it arise from suppression of the menstrual evacuation, which in young women is frequently the case, aloetic purges should be employed, and the legs frequently immersed in warm water. When attendant on *low* fever, it happens from the *weak state* of the vessels, and should be stopped by the compressive means suggested above, unless the vessels of the brain be evidently overloaded. When it occurs in *old age*, and is preceded by head-ache,

drowsiness, and redness of the face, it should be considered a premonitory symptom of apoplexy, and the preventive means already recommended for that disease should be immediately resorted to.

Whatever will produce rigours, or slight shivering of the body, as a cold key to the back, sprinkling the face with cold water, &c., will often speedily check the flow of blood from the nose and other parts of the body.

Such as are subject to this complaint ought to be particular in keeping their feet warm, and in obviating plethora by moderate exercise and spare diet, and the frequent use of the Epsom or Rochelle salt. The application of cold to the forehead by means of a napkin, for ten minutes every morning and evening, is a good preventive.

Practical Remarks. — When a discharge of blood takes place from the nostrils, we should not have recourse to means of stopping it, without duly considering whether it be an operation of nature, or the consequence of diseased vessels. If the system of blood-vessels be evidently in a plethoric state, the object of practice is to take care that the body be not too much reduced by it. When it occurs in young and healthy subjects, and particularly when preceded by head-ache or drowsiness, there can be no doubt of its proving beneficial. In elderly people in a state of health, it is generally salutary. In inflammatory fever it is always beneficial, and even in typhus fever it should not be hastily checked, unless the system be in a state of direct debility, and evidently sinking. When the consequence of suppression of the menstrual evacuation, remedies should be employed to increase the circulation in the lower extremities; and if the person be of a sanguineous habit, abstraction of blood from a vein in the leg or foot often succeeds in bringing on the uterine secretion.

OF BLOOD DISCHARGED FROM THE BLADDER. — When blood is discharged with the urine in a plethoric habit, the loss of blood from the arm, and the use of the Purgative Mixture (B), p. 113., are proper. The saline purgatives are in this case inadmissible, on account of their rendering the urine more irritating. The diet should be low, unless the patient be much reduced, or the discharge of blood be the consequence of ulceration of the kidneys or bladder.

When it is occasioned by the *mechanical* action of a stone in the bladder, or gravel in the kidneys or ureters, it will require the treatment recommended for those complaints. When ulceration is the cause (which is known from its being attended with a discharge of matter), the rectified oil of turpentine, in the dose of twelve drops, in marsh-mallow root tea, has generally a very happy effect. The buchu leaves, and the Canada balsam, with

gum arabic, in these affections, have also proved particularly serviceable, as the following: —

Take of Infusion of the Buchu Leaves, -	8 ounces.
Tincture of Buchu Leaves, -	6 drachms.
Mucilage of Gum Arabic, - -	3 ounces.

Three table-spoonsful to be taken three times a day.

Or, Take of Canada Balsam, - - -	2 drachms.
Mucilage of Gum Arabic, - -	6 drachms.
Extract of Henbane, - -	12 grains.
Infusion of Roses (London Pharm.),	6 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

Practical Remarks. — The treatment of a discharge of blood from the urinary passages must be regulated by the state of the constitution; for, like that from the nose, it may be of an active or a passive kind. In case of debility, which is generally attendant on ulceration of the kidneys and bladder, the buchu leaves are a valuable medicine: but if the system be in a plethoric state, the loss of blood from the arm, the use of castor oil, the Antimonial Febrifuge Powder, p. 86., and the warm vapour bath, are proper. In all cases, a mucilaginous drink, as linseed tea, decoction of the marshmallow root, or of pearl-barley, should be adopted.

OF BOILS. — The effects of boils on the constitution being generally beneficial, their suppuration should be promoted (if the situation will admit of it), either by the application of the Gum Plaster, spread on leather, or the Emollient Cataplasm, p. 122, or, if indolent, the Suppurative Poultice, p. 122., and the Stimulating Fomentation, p. 123., occasionally. After they break, they require only to be kept clean, and defended from the external air by a mild poultice, or diachylon plaster, or spermaceti ointment spread on lint. The Aperient Pills, p. 89., should be taken about twice a week, for at least one month: and if, after the operation of the pills, the patient should be much reduced, the Stomachic Mixture (A), p. 114., will have a good effect in strengthening the system, as well as correcting the habit.

When boils occur in a weakly constitution, the treatment recommended for indigestion will succeed better than purgatives and alteratives by improving the general health. The inflammation producing boils commences in the cellular substance beneath the skin. In elderly and irritable subjects this inflammation often terminates in sloughing or mortification; which, in vitiated habits, sometimes spreads through the cellular substance, when it is termed *carbuncle*. In this case the strength of the patient must be supported by Peruvian bark, wine, and a generous diet. Solution of acetate of morphine, in the quantity of four drops, administered in each dose of the Peruvian bark, by

allaying general irritation, is a valuable medicine. Besides the application of the emollient poultice, p. 122., the inflamed skin should be washed twice a day with rectified spirit of wine.

Practical Remarks.— A boil being the consequence of an unhealthy condition of the constitution, the application of a lotion and leeches to disperse it is improper, unless it be situated in a place where suppuration would be attended with an unpleasant consequence, as the eyelids, the ear, &c. It may be considered as indicating the use of an alterative and an aperient medicine.

OF BOILS OF THE GUMS. — CAUSES. — Boils of the gums are the consequences of a fit of the tooth-ache, cold, external violence, and a partial disease of the jaw-bone and decayed teeth.

TREATMENT. — When a boil arises from the irritation of a carious tooth, its extraction is necessary; and when from other causes, suppuration may be promoted by the application of a roasted fig; and after the matter is evacuated, the mouth should be frequently rinsed out with the Astringent Gargle, p. 108., or the tincture of the rhatany root, diluted with water, as directed under the head of Prepared Areca Charcoal, p. 155.

Partial inflammation of the gums terminating in suppuration or boils is a very common complaint: and it is worthy of notice, that when they are allowed to suppurate, the interval of recurrence is much longer.

OF BURNS AND SCALDS. — Slight burns or scalds may in general be cured by the Anodyne Liniment (A or B), p. 124., or Anodyne Lotion (A), p. 125. If the person be of a plethoric habit of body, or if the system become feverish, however trifling the accident may be, it will be most prudent to empty the bowels, with either the Aperient Mixture (B), p. 112, or the Rochelle or Epsom Salt, and to keep the system quiet by the Saline Mixture (B), p. 114. After the operation of the aperient medicine, five or six drops of the solution of acetate of morphine may be added to each dose of the saline mixture, particularly in case of much pain, or if the mischief be extensive. A low diet is necessary till the inflammatory symptoms have subsided, when the usual mode of living may be gradually resumed.

This treatment should be adopted, although the injury may not be very extensive; for if the constitution should be in an unhealthy state, it may produce considerable mischief. From inattention to this constitutional treatment, the most trifling accidents are often productive of the most serious consequences.

The immersion of the part in cold water, as soon as possible after the accident, affords instantaneous relief, and by keeping it a few hours in that situation, the mischief is certainly much

diminished. The Discutient Liniment (D), p. 124, in many instances, I have known to prove very beneficial.

When the injury is extensive or deep, mortification or sloughing will probably ensue, the result of which will depend on the state of the constitution. The advice, therefore, of a skilful surgeon should be resorted to in the first instance.

In very weakly constitutions, or in leucophlegmatic habits, the Stimulant Liniment, as the Discutient, p. 124, and even a mild tonic medicine, as the following, with a gentle aperient, will be more proper than a cooling application and saline mixture.

Take of	Infusion of Roses, - -	6 ounces.
	Tincture of Cascarilla, - -	4 drachms.
	Solution of Acetate of Morphine,	10 drops.

Mix.—Three table-spoonsful to be taken three times a day.

PRACTICAL REMARKS. — This short account of burns and scalds points out the propriety of attending to the constitution as well as the local injury. Experience has taught me, that the most trifling accident in a bad constitution often produces the most serious mischief.

OF BRUISES AND SPRAINS. — In cases of sprains, the prevention of inflammation should be attempted by the application of leeches, and afterwards the Discutient Lotion (B), p. 126; to which may be added, in case of much pain, half an ounce of laudanum. The Aperient Mixture (B), p. 112, should be taken occasionally, and the Saline Mixture (B), p. 114, if fever intervene. If leeches cannot be readily procured, and the inflammation runs high, the loss of eight or ten ounces of blood from the arm will be proper. A low diet should be strictly observed till the first or inflammatory symptoms have subsided.

Superficial bruises may generally be cured by the Soap or Cajeput Liniment, or the Discutient Lotion (A), p. 126, with the use of the Epsom Salt or Aperient Mixture (A), p. 111; but if the part has sustained much injury, mortification may probably ensue, which in an elderly person may terminate unfavourably; such a case should therefore be referred to a surgeon.

The treatment of bruises and sprains, like burns and scalds, must be regulated by the state of the constitution. In an inflammatory habit, the slightest accident is sometimes productive of the most serious consequences; and in elderly people, or leucophlegmatic habits, the inflammation frequently terminates suddenly in gangrene; it is therefore judicious practice always, in the first instance, to guard against mischief. The directions given for the prevention of sympathetic fever in cases of burns and scalds, are applicable to bruises and sprains.

OF CANCER. — This disease is divided into two stages; occult or scirrhous, and open or ulcerative. During the first stage, the object is to allay irritation, and to bring the absorbent vessels of the part into action; and for this purpose abstraction of blood from the part, about twice a month, by leeches, and the application of the Discutient Plaster (C), p. 130, with attention to the bowels and stomach, I have found to succeed in numerous cases. A hare skin applied over the tumour, with the hairy side next the skin, is also useful in protecting the part from the pressure of the stays, &c.

Should there be appearances indicating visceral obstruction, a grain of calomel should also be administered every or every other night (formed into a pill), and continued for ten days or a fortnight. — (*See* INDIGESTION.)

The tincture of iodine, in the dose of twenty or thirty drops twice a day, in a glass of the decoction of marshmallow root, has lately been highly extolled as a remedy for scirrhous tumours; and in the 79th Number of the Monthly Gazette of Health, a remarkable case of this disease appears, in which it was administered with complete success.

In diseases like the present, it is of great consequence to allay the general nervous inquietude of the habit. Hence the mind, as a most powerful agent in disturbing the nervous system, should be kept in a tranquil and steady frame. Anodyne and nervous medicines will accordingly, with such patients, be highly useful.

Equally with the use of medicines, the regulation of diet claims an important consideration, in regard to which we must take into the account the former habits of the patient and the state of constitution. If the constitution be not much reduced, vegetables should form the principal part of the regimen; while the best beverage will be distilled water, being free from any chemical combination that might irritate, or produce disturbance in the system, and the meat (which should be taken only once a day) should be fresh, and as little roasted or boiled as possible. But if the habit be much debilitated, a more generous diet will be necessary; for too low a regimen, by increasing general nervousness, may aggravate the disease.

When ulceration has taken place, attention should be directed to the declining health of the patient, under its ravages. To counteract the decomposing process, and suspend the ulceration by keeping up the vitality of the parts, the surface of the sore should be sprinkled with the phosphate of iron, combined with an anodyne, as the following:

Take of Phosphate of Iron, - 4 drachms.
Hemlock in fine powder, 2 drachms.
Mix.

The phosphate of iron (first recommended by Mr. Carmichael, an eminent surgeon of Dublin), I have found to answer this purpose better than any other topical application. The best method of using this composition is to form it into a thin paste with water, and to apply it, by means of a hair pencil, to the surface of the ulcer every morning, over which a cataplasm of fine charcoal powder and oatmeal (in the proportion of one ounce of the former to four ounces of the latter) should be placed, of the temperature of the body. The poultice should be regularly changed twice a day.

The strictest care should be paid in this stage of the disease to support the general health by a strengthening medicine, as the Tonic Mixture (A), p. 115; to each dose of which from five to fifteen drops of the Solution of Acetate of Morphine may be added. If the system be free from fever, and the countenance pallid, from five to ten grains of the oxphosphate of iron may also be administered two or three times a day.

Before decomposition has taken place, or the skin has ulcerated, preparations of iron are manifestly hurtful.

Wine should be allowed in such quantities as to support the system, but not to excite heat or fever; and the Solution of Morphine should, at the same time, be occasionally employed to mitigate pain. The mind should be soothed, and kept in a cheerful state, as nothing is so apt as peevishness and despair to produce irritation in the system.

These methods of treating this disease I have found to succeed in several desperate cases, in which the operation of extirpation had been urged as and dernier resort.

Compression of incipient cancers by rollers, &c. has lately been recommended by Mr. Young, of London. I have never met with a case in which it proved of any advantage, but with many in which it evidently aggravated the disease, and materially injured the general health.

Dr. Sully and Mr. Farr speak very highly of the Infusion of Corsican Moss, in cases of scirrhous tumours. The dose is from a wine-glass to an ale-glassful three times a day. — (*See* INFUSION OF CORSICAN MOSS, p. 134, and ANTISCROPHULOUS CATAPLASM (B), p. 120.

PRACTICAL REMARKS. — By the foregoing account of cancer, it appears that it is not a disease of the constitution, as generally imagined, but a local complaint, arising from diseased absorbent vessels; that on its first appearance, means should be employed to rouse the action of the absorbent vessels for the removal of the accumulated mass of glandular matter; that the progress to ulceration is the consequence of the absorbent vessels being too diseased to act effectually, in which case the tumour should be

removed by the knife. That when the disease has advanced to suppuration, it may be cured by the application of preparations of iron, and by attending to the general health of the patient. That anodynes, as laudanum or hemlock, are serviceable, by allaying the morbid irritation of the part, and in procuring rest.

OF CATALEPSY. — This very extraordinary disease attacks in fits, at irregular intervals, which generally last only a few minutes, but sometimes continue two or three days, when it is termed by the ignorant a *trance*. It is seldom succeeded by any derangement of the system; the patient falling suddenly down, and remaining senseless and motionless. The limbs readily admit of being moved, and continue in the position in which they are placed till the termination of the fit. Although all the senses seem entirely suspended, the patient will swallow with avidity any liquid put into the mouth. The countenance is florid, the eye-lids remain open, and the eyes seem fixed on some object. Sometimes there is a grinding of the teeth, and discharge of tears. The fit, sooner or later, terminates by sighing.

Dr. Cullen observes, that he never saw a case of catalepsy but what was counterfeited; and the same has been said by others. When it is not feigned, he thinks it must be a species of apoplexy; but there is a very evident difference between a fit of catalepsy and apoplexy.

CAUSES. — It may be brought on by passions of the mind; as fear, anxiety, and anger; by intense thought, worms, and excesses of any kind.

TREATMENT. — If the patient be of a plethoric habit, or the face red and bloated, or the blood-vessels of the head and neck distended, eight or ten ounces of blood should be taken from the arm, or from the back part of the neck, by cupping. The Purgative Mixture (A), p. 118, and Antispasmodic Clyster, p. 106, will also be necessary, and the Mustard Poultice applied to the feet. The Antispasmodic Mixture, p. 110, should likewise be administered as there directed.

The smelling salts, or the camphorated acetic acid, may be frequently placed to the nostrils.

If the disease should continue notwithstanding the employment of these remedies, the head should be shaved, and well rubbed with the following liniment: —

Take of Oil of Amber, - - -	4 drachms.
Spirit of Hartshorn, - -	½ ounce.
Oil of Rosemary, - - -	2 drachms.

Slight electric shocks passed through the head have, in some instances, been of service in weakly subjects. Blisters have not been attended with any beneficial effect. The Galvanic fluid,

passed from the head to the feet in the direction of the spine, has in some instances been found very beneficial.

Dashing a pail of cold water over the body, once or twice a day, has proved more beneficial than electricity or galvanism.

Practical Remarks. — Catalepsy is a disease of the nervous system, occurring in opposite states of the constitution, *viz.* in the plethoric and robust, as well as in the debilitated and reduced. Like epilepsy, it depends on a peculiar state of the nervous system; and like it, is brought into action by whatever disturbs the general health, either by increasing the vigour of health, or by reducing it. The treatment must, of course, be regulated by the state of the constitution. Where plethora prevails, bleeding and purgative medicines are the principal remedies; and when the system is in a debilitated state, stimulants, as the mixture of assafœtida, electricity, &c. may prove beneficial. This disease, however, like epilepsy and hysterics, is often aggravated by officiousness, and especially by frequent exhibition either of medicine or food. A few gallons of cold water, poured suddenly over the body, is the most effectual remedy, often suddenly terminating the disease.

OF CATARACT. — This is a species of blindness, occasioned by a diseased state of the lens or its tunic, preventing the transmission of the rays of light to the optic nerve. If the retina (the expansion of the optic nerve in the interior of the eye) be not diseased, vision may be restored, by either depressing the diseased lens, or extracting it entirely.

With respect to the advantages of depression over extraction, there is a great difference of opinion. Many respectable surgeons give a decided preference to depression of the lens, an operation certainly less painful and hazardous than extraction. If the lens happens to be too soft to allow of being wholly depressed (which cannot always be predetermined), it is afterwards frequently removed by absorption, which may be promoted by the exhibition of a little mercury. The only objection to this operation is, that the lens will sometimes rise again to its former situation; but this is a very rare occurrence. Some of the first oculists recommend the extraction of the lens; but it must be allowed that the intention is too often frustrated by the inflammation and consequent thickening of the tunics of the eye: and it not unfrequently happens, that after the patient has gone through the pain of the incision, the lens is too soft to be removed entirely. The depression of the lens, on account of the operation being more simple, less painful, attended with little or no risk, and of succeeding as often as extraction, is entitled to the preference. Mr. William Hey, of Leeds, after thirty-three years' practice in diseases of the eye, states that *experience* has

led him to prefer the mode of *depression*, and very ably and satisfactorily confutes the arguments adduced by Baron Venzet and Mr. Ware in favour of extraction.

So many well-authenticated instances of the absorption of opake lenses, by the *internal* use of mercury combined with hemlock, having been published by respectable practitioners, the operation should in no instance be recommended till these medicines have had a *fair* trial. The following is the usual form for their exhibition: —

Take of Extract of Hemlock, - - 1 drachm.
Prepared Calomel, - - . 15 grains.
To be well mixed, and divided into twenty pills. One to be taken three times a day.

Of all the preparations of mercury, I have found the oxymuriate to answer best in this disease. Eight grains of this preparation may be dissolved in an ounce of spirit of wine, of which ten drops may be taken in a wine-glassful of barley-water twice a day: after taking this solution a week, the dose may be increased to twenty, or even thirty drops, if the stomach will bear it. In the course of three or four weeks, the patient will be enabled to determine whether it be likely to prove of any utility.

The asarabacca snuff, by increasing the secretion from the nostrils, and exciting sneezing, may likewise prove very beneficial; but if sneezing occasion head-ache, or pain in the head, it should not be provoked.

To the state of the general health of the body attention should be paid. If the digestive organs be disordered, the treatment recommended for Indigestion should be adopted. If the patient suffer from a determination of blood to the head (producing head-ache, redness of eyes, or giddiness), the loss of blood either by cupping or venesection, or a blister to the nape of the neck, will also be proper.

Electric sparks may likewise be applied to the ball of the eye once or twice a day.

The following remarkable case of the gradual disappearance of a cataract, is an evident proof that the diseased lens may be removed by absorption, or that the structure may undergo a change by keeping up a degree of irritation in the part.

Admiral Henry having a cataract in each eye, consulted Mr. Ware, who recommended extraction. The admiral submitted to the operation on one eye, and in case it answered, he promised to allow him to perform it on the other. The operation having failed, the admiral resolved to have recourse to his pommeling system and friction, which he had found to succeed in numerous cases of rheumatism and chronic gout. After rubbing the ball of the eye, and at times gently beating it with a small

wooden hammer (the eyelids being closed), in a few weeks he found that he could discern a luminous body, and by continuing the practice, the diseased lens was so totally absorbed, that the gallant admiral was enabled to read small print. Since the publication of the last edition of this work, I have met with cases in which a similar treatment completely succeeded in removing the diseased lens. In the 11th and 12th numbers of the Monthly Gazette of Health, this practice is illustrated by Dr. Balfour of Edinburgh. A representation of the instrument used for rubbing the eye and other parts is given in the chapter on Rheumatism.

Practical Remarks. — The loss of vision in this complaint, arises from diseased structure of the lens, which, in consequence of becoming opake, mechanically obstructs the rays of light to the optic nerve. In this case, the lens may be considered as an extraneous body, and in order to restore sight, its removal is absolutely necessary. This may be done by mechanical means, and by nature. The mechanical means are two. The most simple, and not least successful, is that of depressing the diseased lens to the bottom part of the eye, from whence it seldom ascends, and, in course of time, is frequently absorbed, and in case it should rise again to its natural situation, after the cyst has been punctured in the operation of depressing, it is more likely to be removed by the absorbent vessels. The other method is, by making an incision through the coat of the eye, and removing the diseased lens entirely. This operation is much more painful, and more hazardous than depression, the object being sometimes frustrated by subsequent inflammation, and thickening of the transparent coat. The removal by nature is by means of the absorbent vessels, in which she is to be assisted by rousing their action by mercury, by friction, by sneezing, and by putting the system in a state of health.

OF CATARRH. — Catarrh consists in an inflammatory excitement of the membrane lining the nostrils, fauces, and often the windpipe, attended with slight fever, and sometimes with cough. It generally begins with a sense of stoppage in the nose, a dull pain, and a sense of weight in the forehead, and stiffness in the motion of the eyes; and soon after a discharge of a thin fluid from the nose, and often the eyes, which constitute the complaint termed *coryza*. When the symptoms run high, and the disease is very prevalent, it is named *influenza*.

CAUSES. — This disease is generally produced by sudden exposure to cold air, or by exposure of the head or chest to a current of air, sleeping in a damp room or bed, sudden changes from a warm dry air to a cold humid one, &c.

TREATMENT. — When the circulation is slightly accelerated, and the temperature of the body but little increased, it is only necessary to empty the bowels by the Aperient Mixture (A), p. 111, and to increase the secretion of the skin by the Saline Mixture (B), p. 114; but if the symptoms run high, and the constitution be in a plethoric state, it will be proper to keep in bed, and take *frequently* some warm diluting drink, as barley-water, gruel, or *weak* white wine whey, with the view of promoting perspiration. The Sudorific Mixture (A), p. 115, should also be taken every three or four hours; and if the patient be affected with *pains* in the chest or head, or difficulty of breathing, or be predisposed to consumption, the loss of blood from the arm, and the application of a blister to the side most affected, or over the breast-bone, should not be delayed. The diet should be low, and the almond emulsion, or the compound barley-water, with a little liquorice root boiled in it, as directed page 146, should be employed as the common beverage. — (*See* COUGH.)

Practical Remarks. — Trifling as this complaint is generally considered, it is often the forerunner of some serious disease, as inflammation of the brain, lungs, or inflammatory fever; and in scrofulous habits, it is not unfrequently the exciting cause of scrofulous consumption of the lungs, and in leucophlegmatic habits, with tubercular productions in the lungs, of tubercular consumption. — (*See* CONSUMPTION OF THE LUNGS.) — The practice, therefore, of quieting the system on its first attack, by aperient and sudorific medicines, and, in plethoric habits, by bleeding, should in every instance be attended to, in order to prevent that mischief in the lungs which would lay the foundation of an incurable malady.

OF THE CHICKEN, OR SWINE POX. — The eruption termed chicken-pox sometimes appears without any previous illness, but most commonly it is preceded by slight fever. The vesicles are *distinct*, and *less in size* than those of the *small-pox*; on the second day there is on the top of most of them a very small bladder, about the size of a millet-seed, containing a thin, colourless, and sometimes a yellowish fluid. This disease generally terminates in *three* or *four* days from the first appearance of the eruption, and is attended with so little danger as to require no restraint of diet, or medical treatment, till *after* the *crusts* of the pustules begin to peel off, when it will be proper to administer a dose of the Basilic Powder, No. 36, and to repeat every third or fourth morning for a fortnight.

This eruption may be distinguished from that of the small-pox by being preceded by little or no disturbance of the system;

by the *early* appearance of the vesicles on the top of the eruptions, the contents of which never acquire the *colour* or *consistency* of *pus*; by the pustules being *dry*, and covered with *crusts* on the *fifth* day; and by the eruption being generally first visible on the *back*.

OF CHILBLAIN. — This effect of intense cold, is somewhat similar to that produced by heat, termed scalds and burns, the inflammation, from the injury done to the nerves and lymphatic vessels, being often very obstinate.

The sudden restoration of heat to a part benumbed by cold, by placing it near the fire, is a very frequent cause of chilblains.

TREATMENT. — When a part is frost-bitten, it should be plunged into *cold* water, or rubbed with ice, and afterwards with flannel. If tumefied or inflamed, the best application is the Discutient Plaster (C), p. 130, which will speedily restore the skin to health; but if this cannot be readily obtained, the part may be rubbed with the following liniment: —

Take of Cajeput Liniment, or Soap Liniment,	2 ounces.
Liquid Laudanum, - - -	½ ounce.
Mix.	

When the skin cracks, and an *acrid* matter is discharged, poultices should be applied, but not for any length of time, as their *continuance* is apt to produce *fungous excrescences*. When the inflammation is reduced by these means, the application of a mercurial plaster spread on leather will effect a cure. An ointment composed of equal parts of nitrated quicksilver ointment and olive oil, is also a very excellent application for chilblains in every stage, and particularly when the skin is cracked or ulcerated. It should be well rubbed into the parts with the warm hand; but, if the skin be cracked, it may be spread on lint; and in case of much inflammation, a poultice of bread and water may be applied over it.

People subject to chilblains should, on the approach of winter, wear flannel socks; and gloves lined with flannel; and if the heels be most liable to them, it will also be advisable to cover them, either with the ammoniacal or the mercurial plaster, spread on thin leather.

When the inflammation is extensive, like that attendant on scalds and burns, it not unfrequently terminates in mortification; in which case, the treatment must be regulated by the state of the general health of the patient. The observations on the constitutional treatment of bruises and scalds, equally apply to chilblains.

Practical Remarks. — The mischief occasioned by intense cold

(termed chilblains), like that produced by fire and bruises, should be attended to in the first instance; for, its progress depending on the state of constitution, neglect may be productive of the most serious consequences. Chilblains being very obstinate of cure, the preventive means should be employed by those who are subject to them.

CHOLERA MORBUS. — This disease consists in excessive secretion of the bile, occasioning violent vomiting, purging, and pains in the bowels. The nervous system is much disturbed, attended, more or less, with thirst, cold sweats, fainting, coldness of the extremities, irregular and small pulse, and troublesome hiccough. It is most prevalent during hot weather; and, when the symptoms are violent, it often proves fatal in forty-eight hours.

CAUSES. — As the disease occurs most frequently in warm climates, and in cold climates during the hottest months of the summer, it is very probably the effect of a *warm* atmosphere, which, by increasing the irritation of the liver, produces an excessive secretion of bile. In a person with an irritable liver, it may be produced by whatever may disturb the general health, as excessive drinking, exposure to cold, &c.

TREATMENT. — All the secretions of the body, when considerably increased, possess more or less an acrid quality, and that of the liver (bile) in particular. The first object in the treatment of this disease is, therefore, to dilute the bile, by directing the patient to drink very plentifully of barley-water, gruel, or warm water, in order to prevent its irritating the alimentary canal, and with the same view, a clyster of gruel may be administered twice a day. If the purging, vomiting, or pain in the bowels be violent, from eight to ten drops of the solution of acetate of morphine, or fifteen to thirty drops of liquid laudanum, may be given in mint-water, or tea. If the vomiting continue obstinate after the use of the acetate of morphine or laudanum, one drachm of ether should be administered in a half pint of gruel or starch-jelly, by way of clyster. If the bowels swell, the belly should be fomented with a decoction of camomile flowers, or the patient be put into the warm bath for ten or fifteen minutes. A large blister should also be applied over the region of the stomach and liver.

Dr. Douglas, in the Medical Essays, recommends a decoction of oat bread, toasted as brown as coffee, to be taken freely. He says that he does not remember that this decoction was ever vomited by any of his patients. Mint tea is also said to be very efficacious in this disorder.

If laudanum be not retained in the stomach, it may be given with eight drops of the diluted vitriolic acid; and if this form be

ejected, a pill of two grains of crude opium may be administered in their stead.*

When the vomiting is not very troublesome, Dr. Fordyce recommends from twenty to thirty grains of rhubarb powder to be given, and the patient afterwards to drink copiously of chicken-broth or barley-water.

When the disease proves fatal, it is by producing inflammation in the bowels. On the first attack we should, therefore, attend particularly to the state of the constitution. If the patient be plethoric, the loss of blood will be proper; for the determination of blood to the head, occasioned by vomiting, is, in such a habit, very likely to be productive of great mischief. If attended with pain in the right side, it will also be proper to apply a blister over the region of the liver, and to hasten its operation by previously rubbing the skin with the strong liquor of ammonia.

After the vomiting and purging have ceased, the stomach and bowels will require the use of some mild tonic medicine. For this purpose, the decoction of the Iceland moss, on account of the bitter being combined with mucilage, will answer best. To each dose, six drops of the diluted vitriolic acid may be added; and as soon as the nausea and feverish state of the system have entirely subsided, two tea-spoonsful of the aromatic tincture of rhatany may be added with advantage; and in case of a tendency to costiveness, the bowels should be kept open by small doses of the extract of rhubarb, with the alcaline extract of jalap.

Practical Remarks. — This disease consisting in an excessive secretion of vitiated bile, attended with great irritability of the stomach and intestines, the object is to prevent its doing mischief in the intestinal canal. For this purpose, the acrid bile should be diluted by a mild drink. The next object is, to produce a state of the intestines not favouring inflammation, by reducing the system in case of plethora, increasing the circulation in the skin and extremities, by irritating the skin of the belly by blisters, and by keeping the feet warm, and by allaying internal irritation by the use of laudanum, both by the mouth and clysterwise. To promote these views, the warm vapour bath may also be advantageously employed. The patient should not encourage vomiting as it is likely to keep up the irritation in the liver and intestines.

OF COLIC. — This disorder is known by a violent pain in

* In the 50th number of the Monthly Gazette of Health, laudanum is recommended by Dr. O'Bryan to be administered freely. In every case in which he followed this practice, the patient soon recovered. It prevents spasms and irritation.

s, commonly about the navel, resembling various kinds ons, as of burning, twisting, boring, or tightness. The e generally costive. When there is a violent evacuation s matter, both upwards and downwards, it constitutes the termed *cholera morbus*.

often very difficult to distinguish internal morbid irri- or spasms from inflammation. If the pain be acute, and lly if it be attended or preceded by *rigours* and *fever*, in- ation may be suspected; but, in all cases of colic, there is bly a degree of inflammatory excitement.

USES. — Austere, acrid, or indigestible aliment taken into stomach; the application of a poison, as lead, &c. and ns and costiveness, are the most frequent causes of this ase.

TREATMENT.—The first object is, to evacuate the contents of the estines by the Purgative Mixture (B), p. 113; and if this should t speedily operate, the Purgative Clyster (B), p. 103. The *asmodic* affection of the bowels may be relieved by fomentation, the warm vapour bath, and the use of ten to twenty drops of udanum, the occasional exhibition of the Antispasmodic Mix- ure, p. 111, and the Antispasmodic Clyster, p. 106. In case of fever, with a full pulse, the loss of blood from the arm will sometimes be proper to *prevent* inflammation of the bowels. The dose of laudanum may be increased or repeated according to the degree of pain, even during the time the remedies are employed to procure a stool. It will, however, in all cases, be most pru- dent to defer the use of this remedy till three or four evacuations be produced by an aperient medicine.

The extract of henbane has lately been highly recommended in this disease, in conjunction with laudanum, with the view of obviating its constipating effects. The dose is from four to six grains.

DISTINCTION. — The young practitioner will be able to dis- tinguish colic from inflammation of the intestines, by the pain being *wringing*, and not of a *burning* sensation; by the spasmodic contraction of the *abdominal muscles;* by the *absence* or *trifling* degree of fever; by the state of the pulse; and by the *diminution* of pain upon pressure.

PREVENTION. — People subject to this disease should avoid much vegetable food and fermented liquors, guard against cos- tiveness by a warm purgative medicine, as the Compound Tincture of Senna, No. 8, and should wear flannel next the skin.

Practical Remarks. — The treatment of colic being very dif- ferent to that of inflammation of the intestines, it is of great con- sequence to determine the nature of the disease before a *decisive* practice be adopted. In cases of inflammation, there is generally

fever, pain on pressing the bowels, a sensation of great heat in them, attended with thirst, generally preceded by rigours. When colic occurs in a plethoric habit, it may occasion inflammation in the intestines, and therefore, in such case, it is safe and good practice to reduce the system by bleeding. Both in colic and inflammation, the warm vapour bath is a valuable remedy, and should be as frequently repeated as the strength of the patient will allow. As this disease is a very serious one, the preventive means should not be neglected by those who are liable to it, and on the first notice of its attack, a warm aperient medicine should be taken, as the following draught: —

Take of Compound Tincture of Senna, -	4 drachms.
Tincture of Rhubarb, - -	2 drachms.
Extract of Henbane, - -	4 grains.
Syrup of Buckthorn, - -	2 drachms.
Mint Water, - - - -	6 drachms.

Mix.

CONSUMPTION OF THE LUNGS. — The proportionate mortality by this disease in this country, so considerably exceeds that of any other, that some continental writers denominate it the "*English malady.*" Dr. Young states that it carries off a fourth part of the inhabitants of Europe, and this calculation, Dr. Good asserts, is "by no means overcharged;" and Dr. Woolcombe has calculated that fifty-five thousand people prematurely fall a sacrifice annually to its ravages in Great Britain alone. In Paris, it is said, the disease proves fatal to one-fifth of the inhabitants; at Vienna one-sixth; and that in Russia it is far from being common, and still less so in the West Indies; which is attributed to the great uniformity in the temperature of the atmosphere.

The bills of mortality of the different parishes of the metropolis may induce many to suppose, with Dr. Good, that the calculations of Dr. Young and Dr. Woolcombe are not "overcharged;" but those who are acquainted with the manner in which the information of the diseases that terminated the lives of those who are buried within the limits of the bills of mortality is obtained, will totally disregard them as registers for calculating the proportion of the mortality from any disease. The collecting, printing, and publishing of these records, are placed under the superintendance and jurisdiction of the ancient corporation of parish clerks, who are totally inadequate to the accomplishment either of the medical, political, or moral objects which the records were originally intended to promote. As to the names of the diseases, much error has doubtless arisen from the absurd manner in which the enquiry is made. The churchwardens of each parish appoint two old women, who, on hearing each death announced by the tolling of the knell, apply to the

sexton for the name and residence of the defunct. They then lose no time in going to the house, and *demanding* admittance, in order to ascertain whether there are any suspicious marks or appearances about the body; and in case the death was natural, to *judge* of what disease the person died!! They make their reports to the parish clerk, who records them in their own words. For this trouble they are paid fourpence each, and in general they will, from feelings of humanity, wave the ceremony of examination for the small consideration of one or two shillings. If the body be emaciated, they immediately pronounce the disease of which the subject died *consumption*, and hence the deaths by this disease in the bills of mortality are considerably out of proportion to those by any complaint of frequent occurrence in the metropolis; and some common internal maladies, which produce considerable emaciation, do not even appear on the records. In Herefordshire, where pulmonary consumption is a very prevalent disease, the proportion of mortality from true pulmonary consumption, so far as my situation at the General Infirmary enabled me to form an estimate, was about one in twenty. It is generally supposed that this disease prevails more in large towns or cities than in small ones, chiefly in consequence of the air being deteriorated by the number of inhabitants, the smoke from chimneys, and effluvia from crowded houses, sewers, &c.; but in London it appears to me that the disease is by no means so frequent as in small towns, which are, from their high situation, exposed to a currency of air. In this metropolis, the mortality from *true* pulmonary consumption is not more than eight in every hundred. In Birmingham, Manchester, and Redditch, where the working classes are confined to a sedentary employment, in crowded places, during the ordinary period of life (from sixteen to thirty-five), the mortality from consumption is considerably greater than in any other town or city in this island. The late celebrated Dr. Johnstone, of Worcester, who devoted much time to the investigation of the causes of the frequency of pulmonary consumption among the needle-grinders of Redditch, and the rapidity of its progress in young subjects, attributed it to the collection of ferruginous dust in the air cells. Dr. Fosbrook Simmonds has noticed the consumption of the lungs to which scissar and knife-grinders are subject (denominated the grinders' rot), which arises no doubt from the same cause. The late Dr. Fordyce was of opinion that consumption was often produced in London from inhaling air with the dust of the streets floating in it, and also attributed the consumption of hair-dressers to the action of the hair-powder received into the lungs during respiration. If the ferruginous dust conveyed into the lungs during grinding, be capable of either mechanically or chemically injuring the lungs, one would suppose the particles of hair-powder

could not possibly irritate the internal membrane, or in any way disorder the lungs; it is, however, a fact, that hair-dressers, when hair-powder was in fashion, were particularly subject to pulmonary consumption. Without a scrofulous diathesis, or habit predisposed to tubercular productions, neither the dust from grinding or hair-powder, one would suppose, could be capable of producing true pulmonary consumption.

It appears by some late reports, that pulmonary consumption prevails more in Bristol than any other place in Great Britain; and that too not among its occasional consumptive visitors, but its permanent inhabitants; and yet Bristol has been highly recommended as a healthy resort for consumptive patients!! With regard to the anti-phthisical properties of its mineral waters, which have been highly extolled by some writers, Dr. Beddoes asserts, in direct terms, that they possess no such virtue; and Dr. Thomas says, the waters of the hot wells are by no means deserving of the credit ascribed to them in pulmonary consumption; for during a residence of some time at and near these wells, "I cannot," says the doctor, "charge my memory with a single instance of a person labouring under a confirmed consumption having experienced much relief from their use."

Although a specific for pulmonary consumption, or some pretended successful mode of treating it, has been plausibly brought forward almost every year, for the last century, the disease continues the *opprobrium medicorum*: for we continue to hear of young and old subjects falling sacrifices to its ravages, under the care of the most eminent practitioners, who had the management of the cases from their commencement. The misfortune is, practitioners have directed their attention more to remedies than the investigation of the nature and causes of the different varieties; and in order to give publicity to their names, some have magnified mere palliatives into specifics; hence hemlock, henbane, foxglove, Prussic acid, vinegar, &c., have run their fashionable courses as remedies for pulmonary consumption.

The numerous applications made by consumptive patients for admission at the Hereford Infirmary, during my professional appointment to it (about thirty years since), induced me to pay particular attention to the disease, and to the effects of the different modes of practice the physicians of the institution adopted; and soon after I commenced practice in this metropolis (about twenty-six years since), I established a dispensary for consumptive patients, under the patronage of His Majesty. In many cases, which appeared to have advanced into the last stage, I succeeded beyond my expectation; whilst in others, which appeared to be very similar, I only succeeded in palliating the

most distressing symptoms; and the lungs of those who fell a sacrifice to the disease, exhibiting, on dissection, an extensive mass of organic mischief and destruction, I was led to suppose that the cases in which I had succeeded, were not dependant on structural mischief, or disease in the substance of the lungs, but were, in fact, that variety of pulmonary consumption from chronic inflammation of the membrane of the windpipe and bronchial tubes, without organic mischief, to which I gave the name of catarrhal or membranous consumption; a variety which I had discovered from dissection of a few elderly subjects, who had sunk under its debilitating effects. Supposing that I was only successful in cases which, strictly speaking, were not *real* pulmonary consumption (the substance of the lungs not being diseased), and which will often spontaneously terminate favourably, I discontinued the establishment.

With respect to the important question—is real organic consumption of the lungs curable?—the late Dr. Parr, of Exeter, a physician of great experience and minute observation, says, that he "has witnessed six cases of *decided* pulmonary consumption which were cured;" and Dr. Good asserts that he has known it to terminate favourably in two instances, after it had apparently advanced to the last stage, the patients expectorating a pint and a half of pus and purulent mucus daily, attended with exhausting night sweats, and œdematous swelling of the legs. Were these cases mere catarrhal or membranous affections, *i. e.* confined to the membrane lining the windpipe and bronchial tubes, or the variety which we have denominated organic consumption of the lungs? The appearance and quantity of the expectoration which attended the cases noticed by Dr. Good, clearly prove that they were mere membranous affections. Dr. Parr not having noticed the symptoms of the six cases, which ended favourably in his practice, I cannot form any opinion respecting their nature or situation.

If credence be given to the reports of the late Dr. Beddoes, Dr. Bourne, Dr. Crighton, Dr. Granville, Dr. Hill, *Doctor* Godbold, and others, real organic consumption is as readily cured by vital air, hydrogen air, foxglove, hemlock, the uva ursi, vapour of tar, or honey and vinegar (the pectoral bălsam!!), as ague is by the Peruvian bark or arsenic. The reports of disinterested practitioners, of the efficacy of these remedies, being *in* direct opposition to those who introduced them, it is fair to conclude, that if they have succeeded in one or more cases, they were of the simple membranous kind, which, under a mild nutrient diet, would have terminated favourably without the aid of medicine.

As the difference of opinions relative to the remedies which have been extolled as specifics for pulmonary consumption by

respectable practitioners are exceedingly amusing, and cannot fail to increase the confidence of invalids in the healing art, I shall notice a few of them. Stahl attributed the frequency of consumption to the introduction of Peruvian bark into the practice of medicine; and Morton regarded Peruvian bark as the sheet-anchor in effecting a cure!! Brillonet asserts that consumption is to be cured by such remedies as correct scrofula, as mercury; Reid ascribes the frequency of the disease to the use of mercury; and Cullen says that the remedies which are beneficial in scrofula are of no avail in pulmonary consumption!!! Dr. Rush says, that consumption is an inflammatory disease, and therefore to be treated by bleeding, purging, and cooling febrifuge medicines; and M. Salvadori, who pretended to have paid particular attention to the malady, asserts, that instead of its being an inflammatory disease, it is one of debility, and should therefore be treated by stimulating medicines, and a generous diet!! Desault, and many late writers, assert, that consumption is often produced by a common practice of taking a quantity of vinegar daily to prevent obesity; Galen recommended vinegar as the best preventive; and the late Professor Gregory published a case of a consumptive patient cured by vegetable acids. Dr. Beddoes declares foxglove to be a specific for pulmonary consumption; and Dr. Parr asserts that it proved more injurious in his practice than beneficial!! Dr. Beddoes, Dr. Thornton, and Dr. Good, say that oxygen (vital air) increases the action of the heart and arteries, and raises the temperature of the body in cases of pulmonary consumption: I say, from *repeated* experiments, that it reduces the action of the pulse, and also the temperature of the body. Dr. Bourne, of Oxford, asserts that he has found the *uva ursi* to succeed in curing *true* pulmonary consumption; and Mr. Walker, of Oxford, who attentively watched its effects when administered under the superintendance of Dr. Bourne, says, he never witnessed any beneficial effects from it whatever; and I say, that I have known it prove injurious, by checking expectoration, provoking cough, and increasing fever; and I never met with an instance in which it afforded any relief. Many other instances of discrepancy of opinions, in an art which some moderns boast of being brought nearly to a state of perfection, I might here adduce; but those I have given, I suspect, will prove sufficient to induce consumptive patients at least to be cautious in trusting the management of their maladies to the care of wild theorists and system-mongers.

In a Treatise on Pulmonary Consumption, which I published about twenty years since, I particularly noticed two varieties of disease, viz. the *catarrhal* or *membranous* and the *organic*.

The first variety was about three years afterwards noticed by Dr. Bostock, under the name of chronic bronchitis (chronic inflammation of the internal membrane of the bronchial tubes), and also by Professor Duncan, as a species of consumption, under the name of phthisis catarrhalis (catarrhal consumption). Further experience and observation have convinced me that there are two varieties of *organic* consumption of the lungs, which require different modes of treatment; and it is to this fact that I attribute the contrarieties of opinion which exist among the members of the profession, relative to the curability of *real* consumption of the lungs, and the antiphthisical properties of some medicines. The variety I have noticed in my late Treatise under the name of *organic*, I have denominated SCROFULOUS PULMONARY CONSUMPTION (*phthisis scrofulosa*). This variety commences with partial depositions of scrofulous lymph in the cellular substance of the lungs, which, slowly advancing to suppuration, form small abscesses termed *vomicæ*. These abscesses, which vary in size from a large pea to a pigeon's egg, generally breaking into the bronchial ramifications or air vessels, the scrofulous matter is expectorated with a quantity of mucus from the membrane of the bronchial ramifications and windpipe, to which the irritation attending the suppuration or inflammatory action extends.* The other species of organic consumption of the lungs, which is also very prevalent in this country, arises from the putrefaction of substances formed in the parenchyma of the lungs, termed *tubercules*. These productions are, no doubt, as much parasites as hydatids †, for they are of a regular organization. This species I have distinguished by the name of TUBERCULAR PULMONARY CONSUMPTION.—These productions never suppurate; but when their peculiar vitality is destroyed by inflammation, fever, or any other means, they decompose, and the putrid mass by ulceration gradually escapes into the air-vessels, so as to be expectorated. Like the scrofulous matter in the other species, it is brought up enveloped in mucus; but it is more easily detected by its dark-brown colour,

* The matter from scrofulous vomicæ has a white curded appearance, and a saccharine taste, and may be easily discovered by a microscope in the mucus with which it is expectorated. After being agitated in distilled water, it gravitates to the bottom of the vial, whilst the mucus with which it was entangled ascends to the top.

† In the sheep affected with the disease termed the rot, tubercules, in different states of putridity, are numerous both in the lungs and liver. Tubercles in the lungs of the sheep is so common a disease, that not one in a thousand, particularly during a wet season, is free from them: and I have reason to believe, from numerous examinations of the lungs and liver of sheep who have died of the rot, that inflammation of the lungs produces this disease by destroying the peculiar vital principle of tubercles and hydatids.

and by its putrid odour and taste. The scrofulous matter, on the contrary, is of a light curded appearance, of a sweetish taste, and inodorous. The contents of small scrofulous tumours formed in the substance of the lungs are soft, often thin and transparent, and easily turned out on opening them; but the body of the tubercle is firm, of a dark opaque appearance, and attached to the lungs. The scrofulous tumours are often as large as a pigeon's egg, whilst the latter is generally about the size of a common pea. The tubercle forms only in the pale, languid habit, termed the leucophlegmatic, or the *verminous* (on account of favouring the production of parasitical animals, as worms, hydatids, encysted tumours, &c.), while the scrofulous vomicæ occur in the lungs of florid and plethoric subjects. The irritation or inflammatory action excited by the putrified tubercle, and the subsequent ulcerative process, is generally so trifling, as not to disturb the circulation or the general health, and the cough is short, and expectoration trifling; but suppuration of the scrofulous vomicæ is generally attended with acute pain, especially on coughing, the expectoration is more copious, the circulation is hurried, the temperature of the body increased, and the whole system is more or less disturbed, till the contents of the vomica or vomicæ have escaped, when the system becomes quiet, respiration considerably more free, and the cough less troublesome.

In the scrofulous variety mischief often takes place in the mesenteric glands, and, in the advanced stage, chronic inflammation in the villous coat of the intestines supervenes, attended with obstinate and painful diarrhœa; but in the tubercular species, the mischief is confined to the parts of the lung which surround the tubercle or tubercles, and after the putrid mass is expectorated, the cough gradually ceases, and the patient's health rapidly improves. In the scrofulous species, the pupils of the eyes are distended, the palms of the hands and the soles of the feet often dry and hot, with cold shiverings, succeeded by heat, and afterwards by copious perspiration. The sleep is much disturbed. The heart frequently acts irregularly, sometimes the palpitation being considerable; the pulse very quick, and the urine high coloured, and depositing considerable sediment. In the tubercular species, the pupils of the eyes are natural, the hands and feet cold, the urine pale. When rigours occur, they are very slight, and are followed by little or no fever. The perspiration is clammy, and rarely profuse, the bowels undisturbed, and the appetite good. In the scrofulous species, especially when mischief takes place in the abdomen, the system gives way to the malady in the course of two or three months; but in the tubercular species the patient generally recovers, and when there are other tubercles, the disease will continue, more or less, many years. Hoffman relates

two or three instances of people who lived upwards of thirty years apparently in a state of consumption, occasionally coughing and expectorating purulent offensive matter; and in the Edinburgh Communications, a case of an individual is related, who nearly passed the whole of his life, viz. from the age of eighteen to seventy-two, apparently in a state of consumption; and I knew a clergyman who had the appearance of being in the last stage of pulmonary consumption for forty years, and who frequently expectorated putrified tubercles.

It is in the tubercular consumption that tonic medicines, as saline preparations of iron, myrrh, Peruvian bark, the resinous or terebinthinate balsams (as balsam tolu, balsam copaiba, Canada balsam, gum benzoin, &c.), and the inhalation of the vapour of tar or of resinous gums, have succeeded; whilst, in the scrofulous species, these remedies have not only failed, but aggravated the disease. The two species are, in fact, as opposite in their nature as two diseases can possibly be, and, of course, the treatment applicable to one must be improper in the other.

The cases of dissections of the lungs of persons who had many years before their dissolution been afflicted with affections of the lungs, from which they had perfectly recovered, which have been lately published by Dr. Laennec, a physician, to whose opinions and reports his colleagues in Paris paid great respect, and those by M. Andral, a celebrated surgeon of Paris, satisfactorily prove that ulcerations in the substance of the lungs will heal; and the cavities, with the surfaces healed, Laennec and Andral discovered in the lungs of those who had been afflicted with organic consumption, many years previously to their death, which were no doubt occasioned by the separation of putrified tubercles. M. Andral's Cases of Dissections, lately published by the editor of the most respectable Medical View of Paris, confirming the reports of Dr. Laennec, appear in the 12th Vol. of the Monthly Gazette of Health.

Professor Cullen notices pulmonary consumption as a sequel of hæmoptoe (hæmorrhage from the lungs), of which he enumerates two varieties, viz. the *incipient* and *confirmed*; which are, in fact, only different stages of the malady. The hæmorrhage which precedes pulmonary consumption, is, as I have stated in my late Treatise, the consequence of partial congestion of blood-vessels from the obstruction occasioned by the mechanical effects of the depositions of scrofulous lymph in the cellular substance of the lungs, and the formation of tubercles. The rupture of a blood-vessel is, therefore, the consequence of the condition of the lungs, which lays the foundation of pulmonary consumption; and when such condition does not exist, and the lungs are healthy, hæmoptoe from general plenitude is not followed by

organic mischief. Consumption very often occurs without any previous hæmorrhage; and it often happens that hæmorrhage takes place during the last stage of the disease, particularly on the bursting of a vomica. Professor Duncan, of Edinburgh, considers pulmonary consumption, as I have done in my Treatise on Diseases of the Lungs, a primary disease. He notices three species; 1st, the *catarrhal;* 2d, the *apostematous*, from a formation of an abscess in the substance of a lung, which, on suddenly breaking and emptying its contents into the air-vessels, often threaten suffocation. This disease, when the consequence of acute inflammation of the lungs, or what may be termed *healthy* inflammation, rarely proves fatal, if the sudden escape of the matter does not occasion suffocation. In a scrofulous subject it may be followed by the scrofulous variety. The 3d, the *tubercular* species, which is clearly the variety I have noticed under the head of scrofulous. Dr. Trotter and other writers considering tubercles to be scrofulous tumours, have fallen into the same error.

Dr. Wilson Philip, in his *Practical* Treatise on Indigestion, and *its consequences*, has noticed another variety, to which he has given the name of *dyspeptic consumption*, in consequence of supposing that the disease *in the lungs* is the effect of indigestion. "Drunkards," says the doctor, "at that period of life which disposes to pulmonary consumption, frequently fall a sacrifice to this disease. The excessive use of vinous or spirituous liquors act on tender lungs, or lungs disposed to disease, in the same manner as the atmospherical vicissitudes, or exposure to a currency of air, by accelerating the circulation, and in inflaming the system; and whether the liquor does or does not disorder the stomach, or occasion indigestion, its effects on the lungs are the same. It acts merely as an exciting cause of the disease; and as a proof that the stimulating effects of the liquor, and not the dyspepsy, bring the disease of the lungs into action, the dyspeptic symptoms disappear in proportion as the disease of the lungs advances; and when the latter is established, the stomach generally performs its office, the appetite improves, and the patient is free from any symptom of indigestion, even in the last stage of the malady. If varieties of pulmonary consumption are to be distinguished according to their predisposing or exciting causes, and to the disease of any viscus which might have brought the latent or quiescent morbid affection of the lungs into action, either by disordering the general health, or by some contiguous or sympathetic connection, as Sauvages, Morton, and other writers have attempted to do, the class of species or varieties of consumption would be nearly as numerous as all the other diseases to which Europeans are subject.

In my Treatise on Pulmonary Consumption, I have noticed a species from adhesion in the cellular substance of the lungs, to which I have given the name of *phthisis ab adhæsu.* This consolidated state of the substance of the lungs has been particularly noticed by Abernethy; and some writers, in consequence of the consolidated parts having an appearance of liver, have termed the mass hepatised. It being attended with very little irritation, the cough being slight, and with little or no expectoration, and there being no suppuration in the lungs, it cannot be strictly considered a variety or species of true pulmonary consumption.

Some physicians, who suppose that all disorders and diseases originate in some disordered or diseased state of the liver, have noticed a variety of consumption of the lungs, which they supposed originated in the liver, and gradually extended to the lungs. They have, therefore, distinguished it by the name of *hepatic* pulmonary consumption. I have met with many cases of consumption which had been so named by the blind followers of the hepatic system of pathology of the late Dr. Curry, in which the liver was pronounced to be organically diseased. On dissection, however, the livers of all were perfectly free from any morbid appearance. That the patients were hurried to their graves by the free use of mercurial preparations, administered to remove the supposed disease of the liver, was but too apparent.

Some naval surgeons have noticed a species of pulmonary consumption in the navy, which they have named *scorbutic* pulmonary consumption; and in persons whose lungs are preternaturally delicate, or disposed to disease, it is probable that scorbutic disease may take place in them, particularly as the lemon acid and diet, which prove beneficial in scorbutic affections in other parts of the body, often succeed in restoring the patient to health. Dr. Trotter, however, says, that the suppurations that took place in the substance of the lungs was clearly scrofulous. I have noticed a species of consumption from chronic erysipelatous inflammation of the internal membrane of the windpipe and bronchial tubes, to which I have given the name of erysipelatous phthisis. This occurs in subjects of an erysipelatous constitution. The expectoration, during its first stage, has a saline taste; but after continuing a few weeks, it becomes sweetish, and does not differ from the variety which we have termed catarrhal or membranous consumption.

There are clearly three varieties of pulmonary consumption, which differing in their nature and situation, require different modes of treatment; viz. the *membranous* or *catarrhal*, the *scrofulous*, and the *tubercular*.

OF THE MEMBRANOUS PULMONARY CONSUMPTION.— This variety of pulmonary consumption com-

mences in and is confined to the membrane which lines the windpipe and the air-vessels. The first case of this disease I met with occurred in the London Hospital, thirty years since. The disease commenced about a month after amputation of a diseased limb (scrofulous), with a dry short cough. In the course of a fortnight, expectoration of a frothy mucus came on, with a saltish taste, and sometimes very slightly tinged with blood. As the disease advanced, the matter expectorated became more thick and opaque, or what is termed puriform, and sweetish to the taste. The emaciation of body increased, and in about three months the disease terminated fatally. The surgeon who attended him gave his opinion, that "scrofulous disease" had taken place in the lungs; but on dissection, the substance of the lungs was found free from disease; the membrane of the windpipe and bronchial ramification, and also of the fauces, was much inflamed, and the air-vessels were loaded with morbid mucus. It was, therefore, a clear case of membranous consumption; and had the surgeon been aware of it a month before his death, he would very probably have adopted a practice that would have restored him to health. This disease frequently occurs in erysipelatous constitutions, termed by some writers the scorbutic habit; but in scrofulous subjects, the irritation, by extending to the substance of the lungs, may occasion a deposit of scrofulous lymph, and thereby lay the foundation of scrofulous consumption; and it is also probable that the inflammatory excitement of the membrane in a scrofulous subject may partake of erysipelas and scrofula, or become chiefly scrofulous.

In the commencement of the membranous variety, *i. e.* when here is little or no expectoration, or when the mucus expectorted is frothy and nearly transparent, a combination of the extract f garden lettuce, ipecacuan, gum arabic, as the lettuce lozenge, commended by Dr. Duncan, sen., with such other remedies the state of the intestinal canal, the skin, the circulation, and e degree of local irritation or inflammation may indicate, genely succeeds in curing the disease. The following mixture I have nd particularly efficacious in allaying irritation and cough, after otying the bowels, and reducing the sanguiferous system:

Take of Extract of the Garden Lettuce, from 20 to 30 grains.
Ipecacuan Wine, from - 1 to 2 drachms.
Oxymel of Hedge Hyssop, - 4 drachms.
Gum Arabic Powder, - - 3 drachms.
Bitter Almond Emulsion, - - 7 ounces.

t.—Two table-spoonsful to be taken four or five times a day, or when the is very troublesome.

this mixture should not produce a sufficiently quieting imon on the disease, six drops of the Prussic acid may be to it, or twelve grains of the extract of cicuta. The vapour

of a decoction of the hop, or cicuta, inhaled (by means of Read's improved Inhaler), twice a day, has generally a very soothing effect, and uniformly hastens the recovery of the patient by promoting expectoration. Costiveness should be obviated by the pills of the Alcaline Extract of Jalap.—(*See* page 165.)—When the irritation or inflammatory action runs high, a blister should be applied over the upper part of the breast-bone. These remedies, with a corresponding diet, as arrow-root jelly, barley-water, linseed tea, &c., and flannel next the skin, in general succeed in restoring the patient to health; if, however, the irritation or inflammatory affection of the membrane should not give way to it, an alterative medicine should be administered to correct the constitution, as the following composition: —

Take of the Blue Pill, . - - 20 grains.
Golden Sulphur of Antimony, - 9 grains.
To be divided into six pills, one to be taken every night.

This quantity is generally sufficient to produce the desired effect; and as the disease is generally aggravated by mercury, when it affects the salivary glands, or produces what is termed mercurial fever, it is not safe to exhibit it in larger doses, or to continue it for a longer period than six days. Tar water is also a good corrector of this habit of body. — (*See* ALTERATIVES, p. 3.)

The decoction of the pods of St. John's beans is an excellent and pleasant demulcent drink, during every stage, not only of the membranous, but the other varieties of consumption. It may be slightly acidulated with lemon juice. When the disease has advanced into the second stage, an addition of the terebinthinate balsamic remedies will be necessary to correct the morbid secretion of the membrane, and also a diet more substantially nutritious, to support the system against the debilitating effects of the disease, and to enable the patient to relieve the small air-vessels of the accumulation of morbid mucus. When the disease has advanced so far in the second stage that the mucus is clearly morbid, being thick and opaque, and having a sweetish taste, or an earthy odour, and especially when the nocturnal perspirations are copious, and emit the same kind of earthy odour, and are clearly not critical, the following mixture generally proves very beneficial: —

Take of Sassafras Balsam, - - 1 drachm.
Mucilage of Gum Arabic, - 6 drachms.
Extract of the Garden Lettuce, - 1 scruple.
Oxymel of Hedge Hyssop, - 6 drachms.
Infusion of Roses, (London Pharm.) 7 ounces.
Mix.—Two table-spoonsful to be taken three times a day.

The inhalation of the vapour of tar (by Read's Inhaler), by correcting the secretion of the affected membrane, and enabling

the small air-vessels to convey their loads of mucus to the larger, so as to be expectorated by coughing, is an important auxiliary.

The inhalation of oxygen also acts very beneficially, by enabling the oppressed lungs to perform their office of decarbonizing the blood.

During this stage neither blistering, bleeding, nor purging is rarely if ever necessary; and when the legs swell, a nourishing diet of animal food, and even a little wine, will be proper. Sea air is also an important auxiliary to medicine in the last stage of this disease.

TREATMENT OF THE SCROFULOUS PULMONARY CONSUMPTION. — If on the commencement of this disease the system be plethoric, or the heat of the body above its natural standard, it will be necessary to lessen this morbid condition, by extracting blood; the most beneficial method of doing which is by cupping. By this operation both arterial and venous blood is extracted, and a degree of external irritation at the same time excited, that tends to produce a diversion in favour of the internal disease. The intestinal canal should be cleared out by the Aperient Mixture (A), page 111. This medicine should be occasionally repeated; for nothing so much aggravates the disease as costiveness. For the purpose of exciting a degree of inflammatory excitement, or what is termed counter-irritation, the *rubefacient ointment* may be rubbed over the side of the chest most affected, as directed page 128. When the eruption has maturated, the part may be dressed with the spermaceti ointment, for two or three days, according to the degree of inflammation present, when the ointment directed may be re-applied. — (*See* RUBEFACIENTS, p. 41.)

Another important auxiliary is, the promotion of the secretion of the skin, termed perspiration. By this measure, the increased temperature of the body is not only reduced, but the congestion of the blood-vessels of the lungs diminished. The medicines termed diaphoretic answer best, when combined with a vegetable anodyne, which should be proportioned to the degree of irritation or cough. — (*See* ANTITUSSIC MIXTURE (A), page 111.)

If these medicines fail to produce perspiration in a sufficient degree, it will be proper to have recourse to the warm vapour bath at about one hundred and ten degrees (Fahr.). In the early stage of the disease, I have found this remedy so highly beneficial, that I regularly employ it, even where there is sufficient perspiration. Warm vapour to this degree, when inhaled, acts as a fomentation, and, externally applied, promotes an healthy action throughout the body.

If the symptoms indicate a high degree of inflammatory excitement in the lungs, as incessant cough, short breath, shooting

pains in the chest, the following composition may be substituted for the antitussic mixture: —

Take of Oxymel of the Colchicum Seeds, -	½ ounce.
Prussic Acid, - - -	6 drops.
Gum Arabic, - - -	2 drachms.
Emulsion of Bitter Almonds, - -	7 ounces.

Two table-spoonsful to be taken three times a day.

(*See* PRUSSIC ACID, page 165.)

When by these means the feverish state of the system is subdued, and the irritation of the lungs is in consequence abated, the oxymel of hedge hyssop may be administered with considerable advantage. — (*See* OXYMEL of HEDGE HYSSOP, and OXYMEL of COLCHICUM SEEDS, page 150.)

The inhaling of medicated vapours, particularly of tar and the resinous gums, has been recommended with the view of producing healthy digestion of ulcers; but as the ulcerated surface of a broken vomica is not exposed to the action of the vapours received into the lungs, as the practitioners who suggested these remedies supposed, they cannot succeed in producing such a desirable effect, and by increasing the inflammatory excitement of the internal membrane of the air-vessels, it generally increases cough and difficulty of breathing.

Since the publication of the last edition of this work, Dr. Crighton has communicated to the profession some cases of pulmonary consumption in which he employed the vapour of tar with success. Dr. Forbes, who gave this remedy a fair trial, found it not only inefficacious, but decidedly injurious.

The Rev. Dr. Steward, in a periodical work, states that he has had recourse to sponging the chest with cold vinegar and water, with very great advantage. In all the cases it has been employed, with which I am acquainted, this practice uniformly increased cough and difficulty of breathing. The Doctor's mode of treatment is given in the 91st Number of the Gazette of Health.

In America, mercury has been found, by Dr. Rush, to succeed in curing pulmonary consumption. Before we venture on the exhibition of this active remedy, the system should be nearly free from fever. When the patient is in a state of convalescence, a small quantity of mercury introduced into the system generally succeeds in shortening the period of convalescence; but when the disease is in a state of progress, it uniformly increases the irritation of the lungs, and, of course, the cough and hectic fever. The exhibition of an emetic dose of ipecacuan powder two or three times a week, is also much extolled as a remedy for consumption, by producing a determination of blood to the surface of the body and to the extremities, and by relieving the lungs

quantity of mucus, in consequence of being compressed by ıction of the diaphragm during vomiting. — (*See* EMETICS, 27.)

EGIMEN. — The diet should be such as tends to keep the ım in a quiet state. Spirituous and vinous liquors should, ʻfore, be strictly prohibited. In the first stage of the dis- a diet of vegetable jellies, such as the arrow-root, tapioca, , oatmeal, and light puddings, and diluted milk, according e taste and inclination of the patient. When the system ʒiven way to the disease, animal food is absolutely necessary. meat of young animals should be preferred, and taken in ıw a state as the stomach will bear it. The use of animal is prohibited by many writers on this disease; but in the ıced stage the patient sinks more rapidly if he be deprived , and he thereby loses the chance of recovery. A strong ction against an entire vegetable diet is, the quantity re- ite for the support of the system is so great, as to distend ıtomach to that degree as to oppress the lungs. Even when ıal jellies are used, I have found them not to digest so ily in many stomachs as meat in an under-done state. *

'RESS. — The patient should, from the first attack, wear ıel next the skin, to keep up a sufficient secretion of perspir- matter, and prevent the injurious effects which sudden sitions are apt to produce. The highest parts of the house be the most eligible residence, and particularly for sleeping. xercise in this disease should be chiefly of the passive kind. ıce the advantage which has been derived from riding on eback, and from a sea-voyage. The exercise of digging in lens is much extolled by some writers; but this exertion of ʏ is too great; and the moist exhalations from the earth are ʏise injurious. Swinging, which is similar to sailing, is often ʻficial. When the chest is by deformity contracted, which is ı the case with consumptive patients, the use of the dumb- ; has been recommended with the view of opening or widen- it. But the capacity of the chest being adapted to that of lungs, no advantage could arise from it, even were it possible xpand the chest; while the exercise, by hastening the circu- ın through the lungs, is apt to do mischief; and, in some s, I have known spitting of blood to follow it to an alarming ree. Such exercise can be only useful when the person is ng, and, at the same time, free from any attacks of the ase.

* No set of people eat more animal food than butchers, and yet they ap- to be exempt from consumption of the lungs, although they are much ıed to the most powerful exciting cause — a damp or current air. — (*See* r.)

Sudden transitions, I have already stated, are highly injurious to consumptive patients; and when the patient passes from a cool air to a heated room, the approach should be made gradually, for the lungs are then more susceptible of the stimulus of heat.

Air is a subject on which much has been said, with respect to its influence in affections of the lungs, and a particular prejudice exists against the air of great cities. In the first stage of the malady, if the air possesses no stimulating property, it is of little consequence; but after suppuration has taken place, it is of the first importance to make a change, from a crowded and confined situation to a salubrious spot. The air being generally in a constant state of rapid motion, the air of large places soon undergoes a change. The air of Devonshire, in consequence of being sheltered from the baneful influence of the east, is comparatively mild, and the ground healthy. Others prefer a situation by the sea-side; and, in autumn, this is often serviceable; but, in winter, the neighbourhood of the sea, in Devonshire, the most desirable.

A plan has lately been proposed, to cure consumption by keeping the patient in an atmosphere of a regular temperature, by conveying into the room heated air. By keeping up a certain degree of evaporation from the body, it may prove beneficial; but the inhalation of warm air aggravates the disease of the lungs, and is otherwise unpleasant to the patient. In the last stage particularly, it accelerates the progress of the disease. It is on this account that consumption proves so fatal during summer in this country, and in hot climates. Cold air, although hurtful by checking the secretion of the skin, is very pleasant to a consumptive patient, and, by conducting superabundant heat from the lungs, tends to quiet the disease. A consumptive patient also requires the room to be well ventilated. The changes in the temperature of the atmosphere during winter, by producing irritation in the lungs, is the exciting cause of consumption, and the heat of summer hurries on its incurable stage.

In consumption, as in some other diseases, it not unfrequently happens, on relieving the affection of the lungs, disease takes place in some other part of the body; and in proportion as the original affection declines, it advances. Such attacks, if not in a situation to endanger life, should therefore not be checked by repellants. I have known several instances of pulmonary consumption to terminate in swellings of the knee and elbow joints.

Even after the disease is apparently cured, and all morbid action suspended, the patient is not to be considered out of the hands of the practitioner. The state of body which favours its recurrence is still to be further corrected; and, for this purpose,

an issue is the most effectual remedy, which, with the occasional use of a mild aperient, as the alcaline extract of jalap, will keep down that fulness and inflammatory state which favour the attack of the malady. These, with a low diet, will, in the course of two or three years, entirely destroy the predisposition existing in the habit.

Practical Remarks on the Treatment of the Scrofulous variety. — In this variety, the remedies which have been found most successful in correcting the scrofulous habit, of which iodine and mercury are the most powerful or direct, have no beneficial effect, but some, as iodine and mercury, when given in the first stage, often aggravate the disease. As preventives, they are very useful; but as corrective remedies, when the disease has taken place in the lungs, they are decidedly injurious. The object of practice in this variety, is clearly to allay irritation in the lungs, and to support the system against the debilitating effects of the vomicæ, in the hope that they are not numerous, nor unfavourably situated, and that a favourable change may even take place in the diseased parts. Copious suppuration in the substance of the lungs, from what may be termed healthy or simple inflammation, often terminates favourably; and when hæmoptoe is not accompanied with scrofulous deposits, or scrofulous suppurations (when the blood probably escapes from a branch of the bronchial artery), it is never followed by consumption; but when the scrofulous suppurations are numerous, it is probable that, notwithstanding we may succeed in allaying irritation, and in placing the system, with regard to the stomach and bowels, &c., in a healthy state, the lungs will never possess the power of getting rid of the mischief they have sustained, and the disease will of course only be a little checked in its process. As a corrective remedy in any stage of the disease, the sea air is perhaps the most safe, and I have found it the most powerful.

The Malvern water was much recommended, as a powerful corrective of scrofulous affections of the lungs, by the late Dr. Cheston of Gloucester, the late Sir Walter Farquhar, and the late Dr. Baillie; and I have known many ladies who, when they first visited the Malvern Well, had symptoms of the scrofulous variety of consumption, return, after a residence of two months, perfectly free from any symptom of the disease.

In this variety, the inhalation of the vapour of tar has been very hurtful, and oxygen has been only beneficial in the last stage, or when the system has considerably given way to the disease. The foxglove, which, during the first stage of scrofulous consumption, is often very beneficial, uniformly proves injurious in the last stage, by reducing the vital powers. The decoction of St. John's bean is an excellent and pleasant demulcent drink,

certainly very superior to barley-water, or the compound decoction of liquorice; it may be acidulated with a little lemon juice. — (*See* ST. JOHN'S BEAN, p. 152.)

TREATMENT OF TUBERCULAR PULMONARY CONSUMPTION. — This variety, occurring in leucophlegmatic habits, it is rarely attended with much irritation or fever; but when the irritation, existing in the membrane of the windpipe or bronchial vessels, is in excess, a sedative medicine will be necessary.

The time when the decomposing or putrefied tubercle is making its way into the air-vessels by ulceration, constitutes the first stage of this disease; and in some irritable or nervous subjects, this process is frequently attended with a troublesome cough, so as to require the same quieting remedies as those we have recommended for the first stage of the membranous variety; but as soon as the patient begins to bring up portions of a putrefied tubercle, as evident by the putrid taste and odour, a balsamic medicine, with a saline preparation of iron, should be administered, as the compound mixture of iron, commonly termed Griffith's Mixture, or the Antiphthisical Mixture, p. 111. Two or three table-spoonsful to be taken three times a day.

The inhalation of the vapour of tar, and also of oxygen, is of great service in this stage of the disease, by hastening the detachment of the putrefied tubercle, and promoting healthy digestion of the ulcerations.

A medium diet, *i. e.* between a low and a generous one, should be allowed, and a glass of wine after dinner, if the head should not be confused, or the face flushed, or the difficulty of breathing and cough aggravated by the meal.

In this variety, pure air, as that of Malvern, or of the sea on the coast of Devonshire or Sussex, is an important auxiliary. Flannel should be worn next the skin.

The treatment of the variety termed the *Chlorotic*, which occurs in young females at a critical period of life, I have particularly noticed in my late treatise on the Management of the Stomach and Bowels in certain constitutions and predispositions; a complaint, into the particulars of which, in a book for domestic reference, I cannot, for obvious reasons, fully enter.

PULMONARY CONSUMPTION OF ELDERLY PEOPLE. — This form of consumption is frequently the sequel of asthma, constitutional cough, or chronic difficulty of breathing. It is always slow in its progress; and, unlike the scrofulous species, it frequently happens, that if the patient pass through the period of winter *, the spring suspends the complaint, and

* The cough, in consequence of its recurring in the winter-season, has been by some writers named the winter-cough: but as it also occurs during very hot weather, the name is improper.

restores him nearly to a state of health, although attended with the most unfavourable symptoms. The cough depends on the state of the air, and is always accompanied with a proportionate expectoration of mucus, which is sometimes frothy, and easily brought up, and at other times is opake and tenacious, and requires great exertion to discharge it. There is very rarely any pain in the chest, and no hectic fever, till within a few days of death, when the mucus changes to a brown appearance, and emits a cadaverous odour. This disease, being the consequence of a previous affection of the lungs, is accompanied with much general debility. The skin is particularly pale and flaccid, and the extremities œdematous; and there often prevails, in a greater or less degree, symptoms of the affection termed pectoral angina. As the disease advances, the breathing often becomes so laborious, as to require the aid of all the muscles of the chest to perform respiration; and the expectoration is also so difficult, as to be effected chiefly by the strong action of the diaphragm, exerted so as nearly to amount to vomiting. As the expectorating powers are diminished, the patient is distressingly oppressed by the collection of mucus in the bronchial ramifications. On opening the chest, the lungs in this disease but slightly collapse; and their external surface exhibits a bluish mottled appearance, bearing slight marks of œdema. The bronchial ramifications are loaded with mucus; and the capacity of the pulmonary veins I have always found more or less enlarged, and with branches greatly distended with blood. Beneath the pleura pulmonalis there is a collection of very small, hard, dark-coloured tubercles; and the nutrient vessels of the lungs much ossified.* There is also an effusion of serum in the cavity of the chest and pericardium.

In the treatment of this disease, although it be not attended with increased vitality, yet it is often necessary to extract blood from a vein; for in elderly people the venous system is often so much overloaded, as materially to oppress the vital powers. Hence, though in such a situation the patient may appear much weakened, the loss of a small quantity of blood from a vein seems

* Ossification of the internal arteries of the chest is so common an occurrence in elderly people, that, in every subject I have opened above the age of fifty-five, this process had in some degree taken place. The most extraordinary case of extensive ossification of arteries I ever met with, or heard of, was that of the late General Bisset of Great Pulteney-street. In the arterial system of this gentleman, there was scarcely an artery of any consequence that was not more or less ossified. Independently of those of the chest, the arteries of the extremities might be traced by the touch to their subdivisions, particularly those of the arms. In the last year of his life he suffered little from irritation of the lungs, and seemed gradually to sink from languid circulation, in consequence of the extensive ossification of arteries.

to take off a load from the springs of life, and to allow the action of the system to go on with fresh vigour. Thus an accession of strength is actually gained; and this advantage should be preserved, by joining with an expectorant medicine a proportion of iron, as in the following form: —

Take of the Alcaline Tincture of Iron,	-	1 drachm.
Gum Ammoniac Emulsion,	-	7 ounces.
Paregoric Elixir,	-	½ ounce.

Mix. — Two large spoonsful to be taken three times a day.

But should the patient be so much reduced, that the above mixture is not sufficiently tonic, the following may be substituted for it: —

Take of Infusion of Rhatany Root,	-	6 ounces.
Oxymel of Squills,	- - -	6 drachms.
Muriated Tincture of Iron,	-	½ drachm.
Paregoric Elixir,	- - -	6 drachms.

Mix. — To be taken in the same manner as the preceding.

These medicines will prove highly useful in promoting expectoration, and, at the same time, in counteracting debility; but, should the expectoration be of a saltish taste, and show an over-saline state of the blood, the following mixture will succeed best: —

Take of Sassafras Balsam,	- -	2 drachms.
Mucilage of Gum Arabic,	-	½ ounce.
Prepared Ammonia,	- -	30 grains.
Paregoric Elixir,	- - -	6 drachms.
Tincture of Squills,	- -	3 drachms.
Distilled Water,	- - -	8 ounces.

Mix. — Two large table-spoonsful to be taken three times a day.

When the legs swell, small blistering-plasters may be applied to the extremities; but they should not be continued longer than six hours, and, after rubbing a little mercurial ointment over the part and surrounding skin, the leaves of the cabbage, previously softened by steeping them in boiling water for about half a minute, may be applied. The discharge of serum from the parts never fails to afford great relief, and the mercurial ointment will prevent mischief or gangrene. Blisters may here be objected to, because, in a debilitated system, the inflammation may terminate in mortification; but I never knew an instance of it, when proper precautions were taken not to allow the blistering-plaster to continue on the part longer than six hours, and the mercurial ointment applied as above directed.

The inhaling of the fume of stramonium is attended with no good effect in this disease. In cases of constitutional cough, before the system has given way, or symptoms of actual consumption appear, it is a valuable remedy. The tar vapour and oxygen

ten very beneficial. Laudanum is uniformly hurtful, by ng expectoration. The foxglove, by diminishing the vital s, is, in the advanced state of this disease, a dangerous y; having, in many instances, occasioned sudden death. : diet should be light and nutritious; for at the period of which it occurs, the system is not so easily nourished as at lier age. When paucity of urine takes place, a beverage k gin and water will be the best.

ctical Remarks on Consumption of the Lungs.—The dis- f the lungs producing emaciation of body, or consumption,)ur kinds; two seated in the substance of the lungs, viz. one)artial depositions of scrofulous lymph in the cellular sub- of the lungs, termed scrofulous pulmonary consumption, e other from the formation of parasites, termed tubercles, putrefy; and this distinction is of great importance, on it of the treatment applicable to one being inapplicable to the the seat of the third is the membrane lining the windpipe branches, which is of a scrofulous erysipelatous nature; e last arises from ossification of arteries, and morbid irri- of the membrane of the bronchial ramification, occurring in subjects. The nutrient vessels of the lungs being small, possess the same power of removing diseased structure as r parts of the body. The chemical process going on in the)f decarbonising the blood, and the dilatation and contraction respiration, are very unfavourable for the process of heal- nd, on these accounts, scrofulous disease in the substance lungs, when advanced to suppuration, generally terminates

It is in the early stage of the scrofulous variety that re- are likely to succeed in restoring the patient to health.)plication of a rubefacient to the chest, on the commence-)f the membranous and scrofulous variety, is necessary. iet should consist of vegetables well boiled, with a small tion of animal food under-done. All stimulants, or spices, be avoided in the food, except in the tubercular variety, n the patient is far advanced in life, when the moderate a spice, and an increased proportion of meat, are often oper. The exercise should be gentle, and flannel should be next the skin. In the erysipelatous species, the treatment)t materially differ from that recommended for the scrofulous , except the addition of Sassafras Balsam, which corrects retion of the membrane of the windpipe and its branches. eatment of the consumption of advanced age must be regu-)y the state of the state of the system. Steel and other tonic medi- ire necessary in this species, especially when great debility ly is indicated by swelling of the legs, &c., and also in vanced stage of the tubercular variety.— (*See* BALSAMICS,

p. 17. PRUSSIC ACID, p. 164. OXYMEL OF HEDGE HYSSOP, p. 150. ALTERATIVES, p. 3.)

OF CORNS. — Corns consist in a hard thickening of the skin, in consequence of pressure. They are probably formed in the following manner. The cuticle, first rendered thick by pressure, is by continuance of the cause forced into the true skin, and the thickening process being kept up, the accumulation increases, and is forced deeper into the skin. The surface, by the degree of pressure being increased, gradually extends, so that the substance termed "Corn" becomes of a conical form.

TREATMENT. — The callous substance, after having been immersed in warm water for about half an hour, should be nearly removed by a knife, and the remaining callous part rasped off by a fine file, and the part afterwards covered with the Discutient Plaster (C), p. 130, or Anodyne Plaster (B), p. 129, spread on soft leather. If neither of these can be obtained, the Diachylon Plaster may be employed. The occasional cause should be avoided, by wearing easy shoes. When the corn is situated at the bottom of the foot, its recurrence may be prevented (after its removal as above directed), by the use of the horse-hair socks, the elasticity of which will obviate the effect of pressure on walking.

Plasters of verdigris and the red precipitate of mercury have been much recommended for the removal of corns, and for alleviating their pain. From their caustic property, they may have a good effect; but from this quality they may also irritate and aggravate the pain.

In the Monthly Gazette of Health, a correspondent recommends a piece of raw beef of the size of a crown to be applied over the corn, during the night, which, in the course of one week, he states, will effect a cure. The corny substance should be removed by a knife or rasp as it becomes soft.

OF COSTIVENESS. — There is no complaint more general, especially among females, or a more frequent precursor of disease, than costiveness. In this country it is often a predisposing, and not unfrequently an exciting, cause of the diseases that terminate the lives of more than one half of its inhabitants. With females, constipation is often constitutional; and, judging from the good state of the general health, and the debilitating effects of an evacuation daily, and of the operation of a gentle aperient medicine, it appears that some peculiar constitutions require a fæcal evacuation only twice a week. In all cases of disease it is of great importance to ascertain whether the patient be constitutionally subject to confined bowels; for on such patients an active purgative medicine will have a much more debilitating effect than on one whose bowels are relieved every day. Indeed, on some delicate subjects, who are constitutionally costive, I

ıave known a second dose of an aperient medicine produce a nost alarming degree of general debility. It is, therefore, of onsequence to ascertain in diseases, especially those which terninate unfavourably, by rapidly inducing debility, if the conined state of the bowels be constitutional, or has any thing to lo in producing them, or in favouring their progress. The ffects of a dose of a gentle aperient medicine in reducing the ital powers of an individual, whose habit is naturally costive, ill point out the great absurdity of laying down a general rule or relieving the bowels every day, as that by Mr. Abernethy, r of administering active purgative medicines in a great variety f diseases, as recommended by Dr. Hamilton. It is very comnon for young ladies, especially at boarding-schools, in perfect ıealth, not to have their bowels relieved oftener than once a veek; and in the records of medicine, both of the ancients and noderns, many remarkable cases of confined bowels appear. Rhodius gives a case of retention of fæces for upwards of a nonth, and Panarolus one of three months' standing, which, he ays, was not attended with the slightest disturbance of the geıeral health, or inconvenience to the individual. The late Dr. Baillie published a case of costiveness of fifteen weeks' tanding; and Chaptal gives an incredible case of a female, who or four months had no discharge either from the bowels or kidıeys, and very little by what is termed *sensible* perspiration, notwithstanding her diet consisted of broths and whey. The state of bowels in this case was attributed to excessive *insensible* perspiration; but it is probable the separation of carbon from the blood, during respiration, was also in excess.* Although a confined state of the bowels, even for several days, is not necesarily a disease, it is, at certain periods of life, inimical to health, by bringing a constitutional disease into action, and by rendering he system susceptible of unfavourable changes in the atmophere, or of the action of any baneful effluvium or contagion hat may be in it. In females, at the age of fourteen, it is of reat consequence to keep up a healthy circulation in the abominal viscera; for if they be allowed to continue in a state of luggishness, the determination of blood will not take place to ıe uterus, so as to produce its monthly secretion, on which their eneral health greatly depends. In consequence of retention of ıe menses, a determination often takes place to the lungs, which, neglected, will insidiously lay the foundation of incurable oranic disease. In females, at the important period of life when ıe uterus ceases to perform its monthly office, if the bowels be

* By a recent calculation made by the scientific chemist Mr. Pepys, it appears nearly five pounds of carbon is conveyed from the lungs, in the course f twenty-four hours.

allowed to continue torpid, a determination of blood will take place to the brain, so as to produce apoplexy; or to the lungs, so as to occasion pulmonary consumption; or a deposit in the substance of the uterus, which will lay the foundation of the most distressing disease to which the female is liable. In males, after the age of fifty, when venous plethora prevails, if the action of the bowels be not kept up, and the circulation of the blood promoted through them, the sinuses and veins of the brain will become so loaded as to occasion apoplexy.

The importance of keeping up a certain degree of excitement in the abdominal viscera, at those periods of life when mischief in the lungs or in the brain is apt to occur, from partial congestion, must appear obvious to every person capable of reflection; but this is not to be accomplished solely by purgatives; for, as I have stated above, constipation is often constitutional, and not dependant on a want of energy, but on some peculiar state of body, which will not admit of frequent evacuations; and in those cases which are dependant on sluggishness of the intestines, &c., purgative medicines are not so necessary as a stimulating stomachic, and other means which are capable of promoting the circulation through the abdominal viscera, as friction over the bowels, flannel next the skin, horse exercise, dancing, &c., and such internal stimulating medicines which increase the irritability of the muscular coat of the intestinal canal; to which may be added the powerful agent, electricity or galvanism, which act immediately on the muscular coat and glands of the intestines.

The costiveness of robust people, whose digestion is perfect, may rather be attributed to the quantity or quality of the bile, than to an increased action of the absorbent vessels of the intestines, as stated by Dr. Good; and as to violent exercise being a cause, as the Doctor asserts, it is, generally speaking, an excellent preventive, the complaint being very frequently an attendant on indolence and a sedentary life. It is very difficult to account for the constipating effects of those articles which produce the sensation on the organs of taste, termed astringent. I am disposed to attribute their effects to their acting more on the secerning vessels of the internal surface of the intestines, preventing a proper secretion of fæcal matter, than, as Dr. Good supposes, to their stimulating effects on the absorbents; and as to his opinion that the action of astringents on the sphincter muscle of the rectum is a cause of costiveness, it is ridiculous; the office of the longitudinal fibres of that muscle being to expel, and not to retain, the fæces. But, if astringents act by invigorating the absorbents, why does rhubarb, which is, chemically speaking, a strong astringent, act as an aperient? The fact is, that on robust subjects, whose digestion is good, a mild mucilaginous diet, as vege-

table and animal jellies, have a more constipating effect than stimulating articles; and surely Dr. Good will not say that they produce the effect by *stimulating* the absorbents.

According to the professional acceptation of the term—constipation, a person is said not only to be costive when the bowels are not regularly relieved every day, but also when the fæces are too hard to receive a form from the rectum, or when they are what is technically called scybalous, *i. e.* in hardened globular masses, from being moulded in the cells of the colon. The reader must bear in mind that the daily discharge is, however, relative; for the constitution accustomed to a fæcal evacuation every fourth day, cannot be said to labour under a disease, if three days should elapse between the periods, unless the general health be disturbed by it, or the motions too hard to pass with ease. When costiveness, either constipation or obstipation, is attended with head-ache, giddiness, colicky pains, distention of the bowels, flatulence, loss of appetite, and other symptoms of indigestion, it should then be considered a disease.

When we consider the great variety of articles of the materia medica which are capable of increasing the peristaltic motion of the intestines, and their gradations of strength, we are disposed to say that the person must be little better than an idiot, who cannot contrive, by means of some of them, to obviate a degree of costiveness, which in his constitution is clearly inimical to health; but this is, under certain circumstances, often very difficult. — (*See* CATHARTICS, page 20.)

The proper alvine discharge does not entirely consist of the refuse of the aliment taken into the stomach, a considerable portion being a secretion from the internal surface of the lower part of the intestinal canal, named the colon; for on dissection we find the contents of the upper or small intestines free from the fæcal characters; and on examining the folds of the colon, the true fæcal secretion may be distinguished from the refuse of the food. Hence a substantial fæcal discharge may be produced by means of a purgative medicine, four or five times a day, from a patient who has not for many weeks taken any substantial food, and even when they have been supported by clysters of broth. In cases of constipation, the object of practice is not to hurry the contents of the small intestines into the large ones, but to promote the fæcal secretion of the colon; and this secretion being entirely excrementitious, it is, in my opinion, of much greater consequence to the general health, than that of the liver (bile) to which it is now the fashion to attribute nearly all the diseases, local and general, that occur in the human body.

Although it is common to meet with individuals (especially females) in perfect health, whose bowels are seldom relieved

oftener than once a week, and who experience a considerable degree of general debility from a copious operation of an aperient medicine, it is in general prudent to produce more frequent evacuations, by gradual and gentle means; a retention of fæces, and a deficiency of the fæcal secretion of the colon, predisposing the constitution to epidemic and contagious diseases, and tending in other respects to shorten life; for it has been observed, that subjects, whose bowels have not been regularly relieved every or every other day, very rarely attain the age of forty; whilst those who pay attention to the regulation of their bowels, not only live many years longer, but escape the epidemics of the seasons.

TREATMENT. — In subjects from the ages of ten to thirty years, constitutional or habitual costiveness should be corrected by gradual and gentle means: for if active or powerful purgative medicines be administered daily, or two or three times a week, as directed by Dr. Hamilton, and other practitioners, to "conquer the habit," constipation will, after the remedies are discontinued, recur for a longer period. After the intestinal canal has been well emptied by a drastic purge, it will not, in a habit constitutionally costive, fill again for some days, so as to excite the peristaltic motion. I have known the bowels remain costive for a fortnight, after a copious operation of a potent purgative medicine, in persons who had been in the habit of visiting the water-closet once a week: and the daily exhibition of an active purgative often produces, in similar cases, serious mischief in the rectum, and alarming degree of general debility; and I have no doubt many thousands have been hurried to their graves by a blind perseverance in this plan of treatment.

The most obstinately-costive habit may, in general, be conquered, by adopting certain articles of diet which possess a slight aperient property, and by avoiding those which have an opposite quality. Of the former class, perhaps, the most efficacious are, ripe and boiled or baked fruit: as apples *, pears, plums, figs, gooseberries, currants, mulberries, &c., which, in various forms, with a person whose digestion is good, may be made to constitute a part of every meal. The stem of the leaves of the rhubarb plant, when baked, is also a good aperient article of diet. The aperient effects of these articles are greatly promoted by taking fifteen or twenty grains of the carbonate of soda, dissolved in a small tumbler of water, about two hours after a meal. Green vegetables (boiled), gruel, and honey, are also proper articles of diet. Jellies (vegetable and animal), pastry, biscuits,

* In Italy, it is a common, and no doubt a good practice, to add the pulp of cassia, and tamarinds, to apple and plum pies and puddings, to render them aperient.

and astringents—as port wine, cinnamon, nutmegs, &c., are improper. Cheese-whey and water are the best articles to take as a common beverage. The proportion of vegetables should exceed that of meat; and the latter should be taken under-done, so as to contain the red gravy, and should be well masticated, with some vegetable matter—as cabbage, *brown* bread*, &c. Mustard, black pepper, and salt, are also proper additions.

The exercise of riding on horseback, and of walking, are powerful auxiliaries to this diet; but that in a coach, with easy springs, has generally a contrary effect. The person may also habituate himself to go to the water-closet about half an hour after breakfast every or every other day, and to attempt to exercise his mind on the bowels. By persevering in this practice some weeks, many individuals have succeeded in their object. He should not, however, make an effort, amounting to what is termed *straining*; for, by it, a degree of afflux of blood to the brain has been produced, as to occasion serious mischief. I have known a fatal cause of apoplexy immediately to follow such effort to relieve the bowels, and that too when the system was not in a plethoric state, the patient having, a few hours previously to his visit to the closet, lost twenty ounces of blood by cupping. One of the advantages of bringing the bowels into a regular

* The following instructions for making this valuable article of diet, appear in the eighty-fifth number of the Gazette of Health :—

"First Receipt.—To four pounds of best household flour, add two table-spoonsful of yest, and half a pint of warm water; let them stand two hours in a warm place, about four feet from the fire; then add half a pound of bran and a tea-spoonful of salt, and proceed to make the dough with skim milk or warm water; then cover it up as before, and let it stand one hour more: then begin to heat the oven, which will require one hour. Make the loaves, and put them into warm dishes, and let them stand twenty minutes before they are put into the oven. This size loaf will require an hour to bake. When taken out, turn the bottom upwards. The following morning it will be fit for use. Bread, thus prepared, is greatly preferable to that made with flour, ground, and all the bran kept in it.

"Second Receipt.—Cause the wheat to be ground, retaining the *whole* of the bran; take half a peck of such flour, and put in a suitable vessel (wooden is best); mix a quarter of a pint of small-beer yest to a quart of luke-warm water: put this in middle of the flour, and stir it well round with a wooden spoon, until it is a thick batter; the flour remaining on edges of vessel unmixed, sprinkle over the top; then put a napkin over the top of vessel, and set it before the fire, about three feet distant; to remain there two hours, until it rises well; then take it up, and strew over it a table-spoonful of salt, and make the whole into a stiff paste; before such is done, add a little more warm water, if requisite; then put it down to the fire, until it rises again, which will probably occupy from half an hour to an hour; when it has risen again thoroughly, take it up, knead it into the dough. This quantity is sufficient for four loaves. Put it into tins, and set it again before the fire, until it rises a little, and is then ready for the oven. It requires to be thoroughly well baked. It will be ready for use the second day. It is necessary to request the person who grinds the wheat to cause the bran to be ground fine as possible.

state, by simple means, or by articles of diet, is, the important functions of the stomach, and of the small intestines, not being disturbed by them, the body is not deprived of the benefit of diet. If simple or dietetic means should not succeed, an aperient medicine should be employed, which will neither disorder the stomach, interrupt the process of chylification in the duodenum, nor prevent absorption of chyle. — (*See* CATHARTICS, page 19.)

The article which I have found to agree best with the stomach and small intestines, and to promote the fæcal secretion of the colon, without irritating the rectum, is jalap; a purgative medicine which has very undeservedly fallen nearly into disuse among some practitioners, probably in consequence of its becoming a *popular* article.— (*See* APERIENT PILLS, page 117, and ALCALINE EXTRACT of JALAP, page 165.) If the bowels have been accustomed to one evacuation in the course of a week, the dose of the Aperient Pills should be regulated so as to produce one every fourth or fifth day; and after this state has continued about three weeks or a month, it should be increased so as to produce an evacuation every third day, and in this manner the person may go on till he has got his bowels into a proper regular state of one evacuation every or every other day, as he may find best to agree with his constitution. After the bowels have been accustomed to an evacuation every or every other day, for two months, the dose may be gradually diminished, so that the medicine may be entirely omitted in the course of two or three months, when, in general, the aperient diet, noticed page 330, will keep them in a regular state.

If the pills of the alcaline extract of jalap, with the alterative diet, should not succeed in increasing sufficiently the peristaltic motion of the intestines, a remedy should be applied to the seat of costiveness, viz. the colon (the part of the intestinal canal which secretes fæcal matter). For this purpose, about a quart of water, with a table-spoonful of common salt, heated to about 100 degrees, may be injected into the rectum by means of an elastic bag, increasing gradually the propelling force; so that the fluid may be conveyed into the colon without exciting irritation by over-distending the rectum. — (*See* LAXATIVE CLYSTER, page 102, and PURGATIVE CLYSTERS, page 103.)

As an auxiliary to internal medicine and to a laxative diet, the warm vapour bath may be employed; and the object being to stimulate the intestinal canal, the degree of heat should exceed the temperature of the abdominal viscera, which is from 98 to 100 (*Fahr.*). When the intention is to stimulate any part of the contents of the abdomen of a languid, leucophlegmatic, or chlorotic subject, I generally order the vapour to be heated to 120

legrees, and after the patient has been in it about eight minutes, he temperature to be gradually increased to 130, which I have found to act on the intestines. In an inflammatory or plethoric habit, the latter temperature, by stimulating the brain and accelerating the circulation, may, especially if the subject be predisposed to apoplexy, be productive of mischief.

If the foregoing treatment should not succeed in conquering the disposition in the intestines to costiveness, its obstinacy may be attributed to a preternatural rigidity of fibre (a species termed by Professor Cullen, *obstipatio rigidorum*); in which case an anodyne will promote the operation of an aperient medicine, the laxative diet, &c., by diminishing the rigidity of the intestines, &c. For this purpose, four grains of the extract of henbane may be given at bed-time, or twice a day; and to promote its operation, the warm-bath (at a relaxing heat, about 95 or 96) should be employed three times a week. The extract of henbane, the tincture of colchicum seeds, and the inspissated juice of the wild cucumber, termed *elaterium*, are proper antispasmodic purgatives in cases of costiveness attended with rigidity, on account of increasing instead of diminishing the peristaltic motion of the intestines. Opium, and the other vegetable narcotics, are more efficacious in removing preternatural rigidity; but by lessening also the power of the muscular coat of the intestine, on which their peristaltic motion depends, they occasion costiveness. In costiveness, and even in inflammation of the intestine, opium, by allaying morbid excitement, and diminishing the irritability of the muscular coat, is, when judiciously administered, a most valuable medicine.

If the pills of the alcaline extract of jalap, &c., the occasional use of a lavement, the henbane extract, with the aperient diet, exercise, warm-bath, &c. should fail to produce the desired effect on the bowels; the Purgative Pills (A or B) page 117, may be taken every or every other day, according to their effects on the bowels.

The galvanic fluid, passed through the regions of the liver, stomach, and the colon, has proved very successful in cases of constipation, in the practice of Mr. la Beaume.

Of the popular remedies for costiveness, there are three, besides the neutral salts, which are very objectionable, *viz.* aloes, castor oil, and lenitive electuary.

The extracts termed hepatic, socotrine, and Barbadoes aloes, when long continued, are apt to occasion piles or irritation about the rectum, which, in an elderly person, has been productive of serious mischief. The "*famous* Scotch Pills," as they are termed, being composed of aloes and oil of anniseed, have been the cause of the maladies (scirrho-contracted rectum, cancerous

ulcerations) to which many thousands fall a sacrifice in this country. The objection to castor oil is, that unless it be digested in the stomach, it will become so acrid in the small intestines as to produce liquid motions, which, like those of salts, will pass over hardened fæces in the colon. By nauseating the stomach, it also frequently disturbs digestion. A great objection to lenitive electuary is, that it will not keep many days without fermenting; in which state it soon becomes acid in the stomach, and occasions distressing flatulence and griping pains.

COSTIVENESS OF INFANTS. — The costiveness of infants, like that of adults, is often hereditary or habitual; but with the former, the period which constitutes the complaint is much shorter. The bowels of an infant, not constitutionally costive, may be said to be confined if they are not relieved two or three times a day; and what is considered a regular state in an adult, *viz.* one fæcal evacuation daily, is in an infant a disorder, and very frequently the precursor of some formidable disease, either of the head, chest, or belly. After the age of two or three months, the bowels are in general in an opposite state to that of costiveness, from the prevalence of acidity, in consequence of the stomach being overloaded with food, which rapidly runs into the acetous stage of fermentation. Costiveness is, however, so common among newly-born infants, that it is a practice with accoucheurs to send an aperient mixture for the infant with the medicines for the mother, for the purpose of carrying off the black matter, termed *meconium*, which, from its tenacity, is a common cause of obstinate constipation. This substance sometimes adheres with so much pertinacity to the internal surface of the large intestines, as to resist the operation of an active purgative. This secretion (of the use or nature of which physiologists of the present day maintain different opinions), being only found in the colon and rectum, is evidently excrementitious, and affords a satisfactory proof that the principal office of the colon is to separate foul matter from the blood, or, in other words, to secrete fæcal matter. If it were chiefly bile, it would be found in the portion of the intestines through which it must pass to the colon; but so far from this being the case, bile has not been found in the duodenum of a full-grown fœtus born dead. It is, therefore, probable it consists of impurities which have been separated from the blood by the glands of the colon, during the growth of the fœtus, resembling the critical black fæcal evacuations of melancholic subjects. Whatever may be its nature or its use in the fœtus, experience has proved that if it be not carried off by the *first* milk of the mother (which is the best remedy), or by an aperient, it will in a few days disorder the intestinal canal, and, by disturbing the general health, occasion a

cutaneous eruption and irritative fever. When the infant is deprived of the *first* milk, which, in consequence of bad nipples, frequently happens, or in case the first milk should not succeed in cleansing the bowels, an aperient remedy should be administered. For this purpose, it is common to exhibit a few grains of rhubarb powder, or a tea-spoonful of castor oil, or syrup of roses. A great objection to the first article is, its leaving a tendency in the intestinal canal to constipation: to the use of castor oil I object, because it is very apt to nauseate or disorder the stomach, and to produce griping pains: and as to the syrup of roses, it does not act as an aperient unless it becomes sour in the stomach, the common consequence of which is, the bowels are disordered, and continue in a state of irritation for many weeks.

The collection of matter (meconium) being in the colon, an aperient clyster will succeed in removing it effectually in a few hours, without disordering the stomach or the upper part of the intestinal canal, in which digestion is completed, *viz.* the duodenum. In general, an injection of a quarter of a pint of fresh cheese-whey, or butter-milk, will fully answer the purpose of emptying the rectum and colon; but as the matter is often very tenacious, it is always right to dissolve in it a tea-spoonful of Epsom salt, or eight grains of aloes, with the view of gently stimulating the internal surface of the large intestines. If neither cheese-whey nor butter-milk can be obtained, thin gruel, with a little Epsom salt, or aloes in powder, will afford a good substitute. It is a common practice with nurses, in cases of costiveness of infants, to introduce into the rectum a piece of soap or pledget of lint or fine rag, which, by distending the part, brings the diaphragm and abdominal muscle violently into action, occasioning what is termed straining or bearing down. If there be no fæces in the rectum, such efforts will not succeed in producing an evacuation; but if they be kept up by the mechanical action of the remedy, the consequent determination of blood to the head is very likely to disorder the brain, and in infants of a peculiar constitution or temperament, the remedy has no doubt proved an exciting cause of watery head or convulsions.*

When costiveness exists after the *meconium* has been completely removed, the best aperient medicine is jalap, on account of its not disordering the stomach or duodenum. It may be given in conjunction with an aromatic, as the following mixture:—

* About three years since I met with an instance of an infant having been left in a bed three hours with this remedy introduced into the rectum, during the whole of which time it continued its efforts of straining to expel it. The following day inflammation of the brain came on, which terminated in an effusion of serum, termed watery head.

Take of the Alcaline Extract of Jalap, -	10 grains.
Or Jalap Powder, - -	15 grains.
Simple Syrup, - - -	1 drachm.
Dill Seed Water, - -	7 drachms.

Mix. — From two to three tea-spoonsful to be given every three or four hours, until it produces the desired effect.

If this composition should not succeed in unloading the bowels, one grain of calomel may be added to each dose. In some obstinate cases of costiveness in infants, Dr. Dunglinson states he has found large doses of aloes in powder to succeed in emptying the intestines, after the usual remedies had been ineffectually employed. The extract of aloes, on account of its stimulating action on the rectum, being very rarely given to infants, Dr. Dunglinson has thought proper to give the following reason for his having prescribed large doses of it in such cases.

In one case of obstinate constipation attended with fever, the Doctor ordered a drachm of socotrine aloes to be dissolved in an ounce of simple syrup, and a tea-spoonful to be given every two hours, with four grains of scammony and two of jalap; and these remedies were continued till the infant had swallowed three vials of the syrup, containing no less a quantity of aloes than three drachms, when the desired effect was produced.

Some practitioners object to the use of potent purgatives in constipation and other diseases of children; and there can be no question but that they should not be had recourse to until after the failure of the milder means. The objection, however, in many cases (Dr. D. thinks), arises more from theoretical deduction than from any bad effects which have been really observed consequent on their use; the unpleasant symptoms being more frequently occasioned by the disease than by the remedy.

On the use of calomel, a very popular remedy in this country for infantile constipation, Dr. Dunglinson makes the following judicious remarks: —

"To calomel, also, some individuals strongly object, in the constipation of infants, from salivation having been occasionally induced by it. This is, however, so rare an occurrence, that I have myself never witnessed such an instance under the age of two years: and the late Dr. Clarke, whose experience was most extensive and diversified, has remarked, that under various circumstances he had prescribed mercury, in very large quantities, and in a great number of cases; but that he never produced salivation, except in three instances, in any child under three years of age. Where such cases do occur, they ought to be ascribed to some particular idiosyncrasy or susceptibility in the individuals, and only to be esteemed exceptions to a general rule. I have administered calomel freely in infantile diseases, and can safely assert, from the results of such practice, that it is a safe

l efficacious purgative, and one of the most valuable which we sess, owing to the smallness of the bulk in which it may be ibited, and in the absence in it of any disagreeable flavour. er three years of age, its repeated administration cannot be freely indulged as previously; but when joined with rhubarb, p, or scammony, it forms a compound of considerable energy, the administration of which, singly or alternately conjoined, if essary, with infusion of senna, and cathartic clysters, we gene- y place our confidence."

With the late Dr. Cam, an eminent physician of Hereford, the ilic powder was a very favourite purgative medicine in cases constipation of infants. It not only carries off fæces, but also ne and worms, and, by removing obstruction in the mesenteric nds and liver, greatly improves the general health.

We lately met with a French physician of some eminence, who ured us that he had found a solution of croton oil in alcohol, bbed over the abdomen, to excite *general* purging, *viz.* purging the whole alimentary canal, and in some instances even vomit- , after calomel, senna, and other active remedies had failed.

Dry friction over the bowels, and along the course of the ne (with a warm hand), and exercise, are not only powerful ciliaries to aperient medicines in cases of constipation of ants, but generally prove a preventive. For infants of a florid nplexion and full habit, ripe fruit, taken twice or three times a , generally succeeds in preventing costiveness; but in pale, guid, or leucophlegmatic habit, it is apt to disorder the mach, and to favour the production of worms. The seeds raisins, currants, gooseberries, and strawberries, being very ringent, often counteract the aperient property of these fruits; l as they generally pass whole through the alimentary canal, ough they impart their astringent quality to the contents of stomach, they often, by their mechanical action, excite con- erable irritation in the lower part of the rectum. Experience satisfied us that a *vegetable* diet, calculated to obviate costive- s in infants, is as likely to disorder the general health as the lady itself.

Costiveness in infants, after the age of three months, is so very common, that I would advise the parents to examine the wers or box of the nurse for *the cause*. There they will pro- bly find a bottle of Godfrey's Cordial or laudanum to give it en restless, in order that she may secure some rest for herself. In my late treatise on the Management of the Stomach and wels, I have given very explicit directions for the treatment of stipation in a variety of diseases and constitutional predisposi- ns, in which attention to the alimentary canal is particularly cessary.

OF COUGH. — A cough is, in general, considered a trifling malady; but, when it arises in a scrofulous constitution, or in one with tubercles in the lungs, active means should be employed to subdue it, or, in other words, to allay the irritation in the lungs or windpipe. In such cases, a blister over the breast-bone, the loss of blood from the arm, or, if the subject be under thirty years of age, by cupping, the occasional use of the Purgative Mixture (B), p. 113, or Aperient Pills, p. 117, the Cough Mixture, No. 66, or the Lettuce Lozenge, a low diet, and the use of flannel next the skin, are all indispensably necessary to prevent organic mischief, or pulmonary consumption — a very common termination of neglected cough.

For the chronic or habitual cough to which many people are more or less subject every winter, attended with shortness of breath, wheezing, and an expectoration of viscid phlegm, without pains in the chest or fever, the oxymel of hedge hyssop, in the dose of a small dessert-spoonful two or three times a day, is an excellent remedy. If this oxymel should oppress the stomach, the following pills may be substituted for it: —

Take of Extract of Hedge Hyssop and Squill Pill, of each 1 drachm; divide into 24 pills, of which two or three may be taken twice a day.

The lettuce lozenge, recommended by Dr. Duncan of Edinburgh, I have also found a very excellent medicine, in cases of recent or catarrhal cough. When cough is attended with swelling of the legs, paucity of urine, and great difficulty of breathing on lying down, three or four grains of the oxy-phosphate of steel, made into a pill with a little honey, should also be taken twice a day.

It is sometimes difficult to ascertain whether the loaded state of the lungs be the consequence of effusion of serum in the cellular substance of the lungs, or an over-distended state of the blood-vessels. If the patient be in a debilitated state, free from fever, of a pallid countenance, and the ancles swell in the evening, there can be no doubt but that the oppression of the chest arises from weakness or an effusion of serum, in which case the treatment recommended for the consumption of advanced age will be proper.

For the cough of infants, a gentle emetic of ipecacuan powder, administered every twenty-four hours, generally affords very considerable relief, and will often speedily cure it. If attended with great difficulty of breathing, or pain on coughing, a blister, or Burgundy pitch-plaster, should also be applied between the shoulders, or over the breast-bone, and a tea-spoonful of a linctus of equal parts of almond oil and syrup of white poppies, with ten drops of ipecacuan wine, given three or four times a day. The

almond emulsion is a very pleasant and excellent drink for children affected with cough: it not only quiets the system, and allays irritation in the lungs, but is so nutritious, that if a child drink plentifully of it, it will require but little besides. — (*See* ALMOND EMULSION, p. 146.)

When cough is a symptom of pleurisy or of inflammation of the lungs, it is attended with fever, and acute pains in the chest. —(*See* PLEURISY AND INFLAMMATION OF THE LUNGS.)

Cough is also symptomatic of dropsy of the chest, when it is attended with general debility of the system, often swelling of the legs, especially towards night, great difficulty of breathing, and a sense of suffocation in an horizontal position. — (*See* DROPSY OF THE CHEST.)

Cough being a symptom of such *opposite* affections of the lungs, the danger of a *general* remedy must appear obvious. Advertised cough medicines being composed of paregoric elixir, tincture of tolu, gum bezoin, &c., sold under fictitious names, as the essence or balsam of horehound, coltsfoot, &c., are serious impositions on the public: their stimulating properties having, no doubt, in scrofulous subjects, very often so far increased the inflammatory excitement in the lungs, as to occasion a deposit of scrofulous lymph, and thereby lay the foundation of scrofulous pulmonary consumption, and in cases of tubercles to destroy their vitality. — (*See* the varieties of PULMONARY CONSUMPTION, page 309.) In simple catarrh they will produce pleurisy or inflammation of the lungs, which, by terminating in suppuration, may destroy the life of the patient; and even in *chronic* cough they are often hurtful, by checking expectoration.

Cough is not only the effect of obstructed perspiration, but proceeds from various other causes, particularly in children and elderly subjects, such as teething, bowel complaints, fever, effusion of serum, &c. &c. Whoever is acquainted with the delicate structure of the lungs must allow that cough, even in the most healthy subject, requires great attention. Many thousands annually fall a sacrifice to the *consequences* of cough, which in the commencement might have been readily cured by a simple medicine, and attention to diet. Spitting of blood and consumption of the lungs are generally the consequences of neglected or ill-treated cough. Scarcely any disorder alarms the mind of a medical man more than cough, when affected by it himself; and hence, by attending to it on its *first attack*, medical men very rarely die of diseased lungs.

Practical Remarks.—Cough is a symptom of irritation either in the substance of the lungs, the internal membrane of the windpipe and its branches, and in the membrane covering the lungs termed pleura, or of compression of the lungs by serum effused

in the cavity of the chest. This irritation may be considered of two kinds: one attended with *inflammatory* action, in which case there is fever and pain on coughing, and seldom any expectoration. Here blisters, loss of blood, and the use of purgative and sudorific medicines, are necessary, with a low diet. The other with debility, in which case there is a considerable quantity of mucus poured out into the branches of the windpipe, and the cough is necessary to bring up the phlegm. This case is noticed under the head of CONSUMPTION of ELDERLY PEOPLE. The other kinds, from effusion of serum in the chest, particularly in the substance of the lungs, are noticed under the heads of ASTHMA and DROPSY OF THE CHEST. In these latter cases, opiate medicines, by checking expectoration, are dangerous remedies. In consequence of the tender structure of the lungs, their great vascularity, and their importance in the animal economy, cough should be regarded as a disease that should not be neglected. In my late treatise on the Management of the Stomach and Bowels, I have entered fully into the treatment of the varieties of cough, particularly the spasmodic, the winter, and the cough of gouty elderly people.

OF COW-POX. — The matter for communicating this disease should be taken in an early state of the pustule, generally about the fourth or fifth day after the inoculation, by dividing the skin of the pustule with a lancet, and collecting thereon the *clear limpid* matter that exudes, with which the arm of the person to be infected should be so slightly scratched as not to draw blood. On the third or fourth day the part inoculated will appear a little red and prominent, which will keep increasing to about the ninth or tenth day, when the constitution will be infected, the signs of which are a slight fever, and a little enlargement of the glands in the pit of the inoculated arm. The part should be defended from the friction of the linen by applying a little gold-beater's skin; and if the surrounding inflammation should run high, the application of the discutient lotion (D), page 126.

From inattention to these particulars, it is probable the reports of the small-pox succeeding cow-pox inoculation have arisen; for unless the matter be in a proper state, and the *constitution be infected*, the person cannot be secured against the small-pox contagion. It may happen, that the inflammation excited by the inoculation with genuine cow-pox matter may remain local; *i. e.* the inflammation may go on so as to form a pustule, without any portion of the matter entering the system, when, of course, the subject must remain liable to small-pox infection. The same occurs from the small-pox matter, when the system is not favourable to its action, cases of which are by no means uncommon.

Cow-pox, like all other discoveries in medicine, has met with the opposition of those professional characters, who, from motives of lucre and jealousy, are base enough to deprecate or misrepresent discoveries highly advantageous to their own species. The contest between the interested friends and the enemies of vaccination, has been carried on with such heat and illiberality, that the assertions of either party are unworthy of notice. In consequence of the late recommendation of the cow-pox by the legislature, I resolved to embrace every opportunity to put it to the test of experience. For this purpose, I inoculated with small-pox matter about thirty children whom I had vaccinated within the last fifteen years, the whole of whom resisted it. The result of these experiments has induced me to recommend vaccination.

It has been said by the violent opponents of vaccination, that it is often succeeded by a cutaneous eruption resembling the itch; but the experience of disinterested practitioners has most satisfactorily proved the assertion to be false.

Several cases of small-pox subsequent to vaccination, have been published in the Monthly Gazette of Health, which prove that, on some peculiar constitutions, cow-pox does not produce a sufficient effect to secure the constitution against the influence of small-pox contagion; but even in them, the disease was remarkably mild; so that, if it should fail to afford security against the contagion of small-pox, it will assuredly act as a powerful mitigator of its virulence.

OF CRAMP, OR SPASM. — When cramp attacks the stomach, it is generally the effect of flatulence, and often precedes or attends a fit of the gout. When it is the effect of indigestion, it may be relieved by a small tea-spoonful of the Spirit of Sal Volatile, in half a wine-glassful of water, to which, if the patient be of a gouty habit, or the spasm be obstinate, a tea-spoonful of Ether may be added, or the Anti-arthritic Mixture, page 110, may be taken. The Tincture of Ginger and Camomile, p. 61, may afterwards be employed with great advantage to prevent a recurrence, and should be persisted in as long as the patient is troubled with any symptom of indigestion. The Jamaica ginger powder generally succeeds in gouty cases, better than any other stimulant. (See GOUT and INDIGESTION.) If the spasm be so violent as to resist the use of æther and sal volatile, the Anti-spasmodic Mixture, p. 111, may be administered. A draught of warm water often affords immediate relief, particularly when the spasm precedes or occurs at the period of menstruation.

When spasms occur in the intestinal canal, the narcotic or anodyne clyster, p. 104, will be proper, or if the intestines be over distended with gas, the exciting or stimulating clyster in the same page, or if the bowels be confined, the Purgative Clyster (B),

page 103. If the disease continue obstinate, the warm vapour bath should also be employed.

People subject to cramp in the stomach should wear flannel next the skin, and avoid fermented liquors and green vegetables, particularly for supper. (See INDIGESTION and SASSAFRAS NUT, p. 157.)

Cramp in the lower extremities is a very common attendant on the latter stage of pregnancy, in consequence of the pressure of the womb on the nerves leading to them, and particularly during labour, from the pressure of the head of the child. In either of these cases, it may be relieved by compressing the part affected with the hand, and sometimes by change of position, and by rubbing the part with dry flannel, or a flesh-brush. In obstinate cases, the application of æther and laudanum over the part affected has been found beneficial. When it occurs during pregnancy, the internal use of laudanum and æther, as the Antispasmodic Mixture, p. 111, will be proper. In this case particularly, the patient should avoid costiveness, by taking occasionally the Aperient Pills, p. 117, and should observe, as much as possible, a horizontal position. Cramp of the extremities may sometimes be speedily relieved by putting the *opposite* muscles into action; thus, when the muscles of the calf are affected, by putting those on the front into action, which is done by drawing up the foot, the cramp will often instantaneously go off.

For the cure of cramp, a variety of whimsical remedies are in great repute among the lower order of people, which being in themselves perfectly inefficacious, must depend on the imagination for success. Whatever affects the mind with surprise or horror, as the cracking of a roll of brimstone held in a warm hand, the wearing of rings formed of the nails or furniture of old coffins, and such like fanciful conceits, have certainly a wonderful effect on all spasmodic diseases.

OF CROUP.—This disease is an acute inflammation of the membrane lining the windpipe. It is chiefly incident to children, and rarely occurs till after weaning. It is most prevalent in low marshy countries, on the sea-coast, and in wet and cold seasons. It seems to be peculiar to some families, and, after one attack, the patient is very liable to a return even on slight exposure to cold.

SYMPTOMS.—It commences with pain about the upper part of the windpipe, which is increased on being pressed. The respiration is difficult, attended with wheezing, and a *peculiar* ringing or stridulous cough, resembling the crowing of a *young* cock, and a trifling expectoration of mucous matter. The face is somewhat livid, and often much flushed, and the swallowing little affected; there is also some degree of frequency and hard-

ness of the pulse, great thirst, restlessness, and feverish heat. The wheezing and difficulty of breathing are increased by coagulated lymph, or sloughing of the membranous lining of the windpipe, which sometimes stops up the passage so as to produce sudden death.

CAUSES.—It is occasioned by the application of cold combined with a moist atmosphere, particularly in the spring and winter seasons.

TREATMENT.—On account of the situation and acute nature of this disease, *immediate* and *active* remedies should be employed to save the life of the patient; the chief of which are bleeding, purging, and blistering. On the *first* attack of the disease eight or twelve leeches should be applied over the windpipe, and a blister to the nape of the neck, and also *over the windpipe*, as soon as the bleeding from the orifices made by the leeches, will admit of it. If the pulse be strong, or the fever run high, the loss of blood from the arm will likewise be necessary. A dose of Emetic Tartar, should also be exhibited without delay; and if it should not operate on the bowels, a dose of the Basilic Powder, or Jalap and Calomel, may be given an hour after the operation of the emetic. If the skin should continue *dry* and *hot*, from ten to fifteen drops of the antimonial wine may be administered every three or four hours, with the Saline Mixture (A or B), p. 114; and in case they should fail of producing perspiration, the warm bath should be employed. The tincture of foxglove, in the dose of six or eight drops twice or thrice a day, has in some instances been found beneficial. The discharge of the blisters should be kept up, by dressing them with the weak mercurial ointment. This application, after the removal of the dead skin of the blister, has in so many instances produced such immediate relief, that I have been disposed to attribute the recovery of the children principally to it. The acetated ceruse and the Prussic acid, as directed for hooping-cough, is also a very valuable medicine in this disease. If the system be in a plethoric state, which is generally the case, the loss of blood from the arm, or by cupping, will be necessary, provided the bleeding by leeches has not sufficiently unloaded the system of blood-vessels.—(*See* EMETICS, p. 27, and EVACUANTS, p. 32.

The warm vapour bath with the head inside, so as to inhale the vapour, is an important auxiliary. In the Gazette of Health, a case of Croup is given, in which this sudatory (*see* page 173) seemed to have acted most beneficially under the directions of Mr. la Beaume.

In a late number of the Monthly Gazette of Health, a practitioner in Yorkshire recommends an abstraction of blood from a vein till the patient faints. When the patient recovers from

the swooning fit, he is sometimes free from the disease. Since he adopted this practice, he states, he has not lost one patient by the disease. If the remedies above recommended should fail, the Prussic acid, in the dose of one drop three or four times a day, may be administered.—(*See* PRUSSIC ACID, p. 165.)

The patient should be supported with fresh milk, mixed with almond emulsion, or linseed tea, of which, in consequence of its thirst, it will take a sufficient quantity to support it. After the termination of the disease, the decoction of bark with liquorice will be necessary to prevent a relapse. Change of situation to a more light and dry air will also be advisable.

This disease sometimes attacks adults; when the same remedies, to a greater extent, are necessary.

In croup, and in all other maladies, the treatment should be regulated according to the stage and the influence it has had on the system. If the inflammation has so long existed in the membrane as to produce a kind of morbid membrane or lining, and the vital powers have considerably given way, it would be highly improper to have recourse to an active depleting treatment. When this morbid membrane of thickened lymph has formed, or the natural membrane is in a sloughing state, the advice and attendance of a scientific and experienced surgeon should not be neglected, as some lives have been saved by making an opening into the windpipe.

Two species of croup are noticed by medical writers; the one depending on *inflammation* of the inner coat of the windpipe, termed inflammatory croup, which is described above; the other from *spasms*, unattended with inflammation, termed *spasmodic croup*; — the latter species is of the nature of asthma, and comes on in the night-time. It often intermits, and, in the intervals, both the respiration and cough, if any exist, are free from the *characteristic* sound of the inflammatory croup. In the early stage of this disease, medicine has, in general, a very salutary effect; but, if it be suffered to continue long, it will prove very difficult to relieve or cure. The most efficacious remedies in this species are emetics of ipecacuan powder repeated every day, and the Antipertussic Mixture (A), p. 110.

DISTINCTION — Croup may be distinguished from inflammation of the throat, by the *peculiar shrill ringing sound* of the voice, and by the breathing being attended with a wheezing noise. The swallowing is also in general perfectly free, whereas in inflammation of the throat it is difficult.

OF CUTS. — The edges of a recently incised wound, termed a cut, if free from any foreign matter, should be brought into contact as soon as possible, and kept so by means of long strips of the diachylon plaster, spread on linen or leather, over which

a dressing of brown cerate and a bandage should be applied. These dressings should not be removed for at least three days, when a repetition of them will, in a few days more, effect a cure. If much inflammation or pain should come on, the use of the Discutient Lotion (D), p. 127, and the Purgative Mixture (A), p. 113, will be necessary. The traumatic balsam, commonly called Friar's Balsam, generally resorted to in cases of recent wounds, is a very improper application, the stimulating resinous gums of which it is composed being separated on mixing with the blood, occasioning ulceration by preventing the union of the sides of the wound. Such stimulants should, therefore, never be employed, however trifling the accident, as their irritating quality may be productive of considerable mischief, particularly in an inflammatory or irritable habit.

In very superficial cuts it is a common practice to apply the court plaster, which, by keeping the edges together, and defending them from the air, often succeeds: in all cases, however, the gold-beater's skin, or the diachylon plaster, spread on black silk or leather, will answer best.

For the means of stopping the flow of blood from a divided artery, *see* p. 183.

OF DEAFNESS.—The causes of deafness are numerous. It is often produced by an accumulation of the secretion vulgarly termed wax in the external ear; in which case, the ear should be syringed every morning with warm soap and water, till the hardened wax be entirely removed, and a little wool or cotton, moistened with a few drops of the following mixture, introduced after each syringing, and continued for some weeks afterwards, to prevent a recurrence of the accumulation:—

Take of Camphorated Olive Oil, - - ½ ounce.
Tincture of Soap and Spirit of Rosemary, of each, 30 drops.

When deafness arises from palsy of the auditory nerve, electric sparks to the ears, a blister behind them, and the use of the Asarabacca Snuff, page 153, are the most powerful remedies. It will also be proper to improve the general health of the system, by the use of medicines calculated to promote digestion, and give energy to the nervous system, as the Nervous Mixture (C or D), page 113.

Washing the head with warm water every morning will also prove very beneficial, and for this purpose the head should be shaved. A flannel cap should be worn during the night, and a wig lined with flannel in the daytime. A respectable surgeon recommends, in the Monthly Gazette of Health, a few drops of the Tincture of the Pellitory of Spain to be dropped into the affected ear, or ears, every night, or to be applied by means of fine wool or silk.

When deafness is attended with ulceration of the internal part of the ear, which is known by a discharge of matter, the ulcer should be healed as soon as possible, by syringing the ear every morning and evening with the following lotion, made a little warm: —

Take of Egyptian Honey (Oxymel Æruginis),		4 drachms.
Rose-water,	- - -	8 ounces.

Mix.

If this should not succeed, the following composition may be substituted for it; —

Take of Decoction of Quinceseed,	- -	2 ounces.
Fresh Elder-flower Water,	- -	6 ounces.
Sulphate of Copper,	- -	4 grains.

This diseased state of the ear, in which the membrane of the drum of the ear is more or less injured, frequently follows the scarlet fever, and is generally succeeded by incurable deafness, in consequence of a portion of the membrane being destroyed, or the surrounding bone being carious. When deafness is occasioned by obstruction in the *Eustachian tube* (preventing the passage of air into the internal ear), the tube should be syringed with warm soap and water. When the cavity of this tube is obliterated by disease, which is not an unfrequent cause of deafness, it has been proposed to admit air into the internal cavity, by puncturing the membrana tympani, which has, in some instances, succeeded. This operation is very simple, and attended with no pain.

A temporary deafness is often produced by slight cold, particularly in children, which generally gives way, in a day or two, to the use of a little aperient and sudorific medicine, a flannel nightcap, and the warm vapour bath. — (*See* SUDORIFIC MIXTURE (A), p. 115.)

Deafness is frequently the consequence of a deficiency of the secretion of wax; when the following liniment will prove beneficial: —

Take of Oil of Rosemary,	- - -	30 drops.
Oil of Almonds,	- - -	6 drachms.
Liquor of Potass,	- . -	30 drops.
Tincture of Soap,	- - -	3 drachms.

Mix.—Ten or twenty drops to be dropped into the ear, or applied by means of a little lamb's wool.

In the first number of the Monthly Gazette of Health, the Cajeput Oil is much recommended for deafness. It is also much extolled in the foreign journals, as a remedy for this disease. It is directed to be applied within the external ear by means of fine wool, and the part behind the ear to be well rubbed with the Cajeput Liniment.

It is scarcely necessary to observe, that the ear is a complex organ, and when affected with disease, requires very delicate

management. In plethoric subjects, particularly those who are disposed to apoplexy, a very common cause of deafness is compression of the auditory nerves by over-distended vessels; and the increased action of the over-distended arteries near the membrane of the tympany, occasions a noise like the beating of a drum, or the ringing of bells. In such cases, it will appear obvious the mode of treatment is to unload the system of blood-vessels, to guard against fulness by keeping the bowels regular, and a low diet, and to check the afflux of blood to the brain, by applying cold water to the head once or twice a day, and by keeping the feet warm. — (*See* EVACUANTS, p. 32, and DERIVATIVES, p. 23).— When the system is leucophlegmatic, and in a state of debility, a nervine tonic treatment will be necessary. — (*See* NERVINES, p. 37. TONICS, p. 49. and NERVOUS DISEASE.— Deafness arising from a variety of causes, it must appear to the most ignorant, that the stimulating medicines of quacks, so industriously advertised as a general remedy, cannot be applicable to every case.

In the 50th number of the Monthly Gazette of Health some cases of deafness, occasioned by thickening of the external covering of the drum, appear, which were cured by Mr. Earle, of London, by injecting a solution of the nitrate of silver. Before this application, or any stimulating article be applied to the drum of the ear, or dropped into the ear, it is of great importance to ascertain if the drum be entire; for if there be an ulcerous opening or perforation, the article getting into the ulcerated cavity may occasion most serious mischief. The Duke of Wellington experienced a most serious affection of the head in consequence of a portion of caustic solution, applied to the membrane of the tympanum, getting into the internal ear.

OF DIABETES. — This disease consists in an increased discharge of urine, equal to, and sometimes exceeding in weight, the quantity of liquid and solid aliment taken by the patient. *

SYMPTOMS. — The first symptoms of this disease are, dryness of the skin, an increased discharge of urine, and great thirst. The urine, on becoming excessive, contains a sugary matter, and often emits an odour resembling that of violets. The stomach is sooner or later disordered, and thirst and voraciousness of appetite succeed, which will often scarcely admit of being satisfied: with these symptoms, there is generally a slight degree of fever present; and, as the disease advances, the emaciation

* In consequence of the urine having been found to exceed the quantity of food and liquids taken by the patient, some medical men have been led to suppose that the skin, instead of perspiring, absorbs humidity from the air. It is, I think, much more probable that the water is formed in the lungs by the union of inflammable and vital gas (the constituent parts of water).

and debility of the body gradually increase, attended more or less with sub-irritative fever.

CAUSES. — Some late writers attribute this disease to a morbid secretion of the gastric juice, the direct effects of which they suppose to be the formation of saccharine matter, with a certain defect of assimilation, preventing the healthy secretion of urine, and exciting the immediate separation of the imperfectly-formed chyle by the kidneys. * But, as the stomach is seldom deranged till the diseased secretion of the urine has existed some time, it is more probable that the affection of the stomach is the effect and not the cause of the disorder; besides, if an increased action of the digestive organs were the cause, one would expect, when the stomach, with the whole system, is debilitated, the quantity of urine would be diminished; but so far from this being the case, the quantity of urine increases with the debility of the body. This disease probably arises from a morbid condition of the skin, in consequence of which sensible perspiration is checked, and the increased secretion of the kidneys is an effort of nature to carry off an excess of the watery part of the blood. The skin becoming dry, absorbs moisture from the atmosphere, and increased action of the kidneys produces, sooner or later, disease in their structure. The urine is thereby altered in its quality, yielding a violet odour, and, on evaporation, a saccharine matter. It may also be the consequence of the lungs not properly performing their office in conveying hydrogen gas and carbon from the body, the consequence of which may be the production of water.

TREATMENT. — Dr. Rollo, supposing the sugar with which the urine abounds to be vegetable matter, proposes to cure this disease by confining the patient to a diet of animal food.† This plan has not succeeded in the practice of others, who have found, notwithstanding a strict adherence to animal food, that no alteration was produced either in the *quantity* or *quality* of the urine.

Dr. Gilby, physician to the General Hospital near Birmingham, has published several cases of diabetes which were cured by the nitric acid, in the following proportion: —

Take of Nitric Acid,	- -	1½ drachm.
Barley-water,	- -	½ pint.
Simple Syrup,	- -	2 ounces.

Mix. — Four large table-spoonsful to be taken, with the same quantity of water, three times a day.

* Dr. Trotter observes, that the majority of persons he has known afflicted with this disease, were lovers of the bottle. "I suspect," says he, "that many drunkards have this complaint, without taking notice of it, and that it comes and goes without creating alarm, just as they happen to live regularly or otherwise."

† Had Dr. Rollo properly examined the sugary matter, he would have found that it does not possess any *vegetable* property, except that of being sweet to the taste. Like other animal productions, it putrifies and yields ammonia.

Mr. Chavasse, surgeon, of Walsal, states that he has found this medicine to answer in one bad case of the disease.

Dr. Dobson of Liverpool, who has paid particular attention to this complaint, recommends the use of strengthening medicines, as the Peruvian bark; and Dr. Schutz much extols lime-water as a remedy.

The hepatised ammonia, with an abstinence from vegetable food, has succeeded in a few cases of diabetes. The small dose of five drops of this medicine should be begun with, and repeated three or four times a day, in a little cold water, and increased two drops in each dose every day till it produce some degree of nausea, or slight giddiness. This medicine should always be dropped at the time of taking it, as, by being mixed up in draughts, or any other form, its medicinal properties are frequently changed by decomposition. A draught composed of fifteen drops of laudanum, twenty-five drops of antimonial wine, and a little mint-water, is also recommended to be taken every night during its use. The bowels should be kept open by the occasional use of the Aperient Pills, No. 46. This mode of treatment is directed to be pursued till the morbid condition of the stomach be removed; the marks of which are, a *diminished* secretion and *high coloured turbid* state of the urine, accompanied with a *loss* of appetite and *loathing* of food. At this time the tongue and gums lose their florid red colour, and become pale. When these effects are produced, exercise is to be taken; and a *gradual* return to the use of bread and vegetables, such as brocoli, spinach, pease, cauliflowers, cabbage, lettuce, and parsnips, in moderate quantities, is to be allowed. The drink should consist of water, with a very small proportion of brandy.

Dr. Ferrear has published three cases, in which he succeeded by giving the Peruvian bark with the leaves of the bear's whortleberry and opium, in the following proportion: —

Take of Yellow Bark, in powder,
Bear's Whortleberry, in powder, of each, 1 scruple.
Opium, dried and powdered, - ½ grain.
Mix. — To be taken four times a day, in a glass of lime-water.

Lime-water is likewise recommended, by this author, for the common beverage.

The rhatany root I have found to succeed in this disease much better than the Peruvian bark. — (*See* RHATANY ROOT, p. 147.)

For the purpose of producing a determination of blood to the skin, and exciting perspiration, which are of the first importance in the treatment of this malady, the warm vapour bath, to the degree of 110 to 120, should be used every or every other day, and a flannel waistcoat worn next the skin. The diet should

principally consist of animal food; and the common beverage, of three parts of distilled water and one of alum-whey.*

Abstraction of blood to the extent of twelve ounces, about two or three times a week, according to its effects on the patient, has been lately much recommended as a remedy for diabetes; and several cases, in which it succeeded, have been published. Some practitioners object to this treatment in consequence of the emaciated state of the system; but as plenitude of the blood-vessels is often attendant on emaciation, the practice cannot be objected to on that account. In the 8th number of the Monthly Gazette of Health some cases of diabetes are published, illustrative of the good as well as of the bad effects of this remedy. When the stamina are healthy, abstraction of blood is followed by a reaction, and the superintending powers of the economy of the body, or the power of sanguification, being brought into action, the remedy often succeeds; but when these powers are feeble, or when the disease is only the consequence of a general breaking up of the constitution, the practice hurries the patient to his last home. The remedy, at any rate, should not be employed till the general health is improved by attention to the stomach and bowels. In some subsequent numbers, large doses of laudanum are recommended, under the sanction of Dr. Baillie; and in one case, which had resisted the most approved modes of treatment, I found it to succeed. Dr. Baillie commenced with twenty drops twice a day, which he directs to be increased two drops, every other day, till it arrives at sixty. The Prussic acid in the dose of two drops, two or three times a day, in a decoction of rhatany root, is also highly recommended. — (*See* ALTERATIVES, p. 3.)

Dr. Kinglake of Taunton, and other experienced physicians, have lately administered pure magnesia in the dose of fifteen grains, twice a day, with the most decided advantage in several bad cases of this disease. In the 89th number of the Gazette of Health, some cases of diabetes are given which were cured by diaphoretic medicines, with an animal diet.

An increased secretion of urine is a frequent attendant on the hysteric affection and gout, in which cases it is free from saccharine matter, and being a symptomatic affection, will, of course, cease on removing the primary disease.

Practical Remarks. — Diabetes, being dependant on a morbid condition of the skin, the object of practice is to promote determination of blood to the surface, by means of the warm vapour bath and sudorific medicines. Bleeding, in a plethoric habit, is also a powerful remedy in decreasing the secretion of urine. With this treatment such other remedies and diet may be employed as the

* This whey is made by boiling a drachm of alum in a pint of milk.

state of the general health may point out. Although the secretion of the kidneys be in excess, a diuretic medicine, as the tincture or infusion of the buchu leaves, combined with a tonic, during the use of the warm vapour bath (a most important remedy in this complaint), often diminishes the quantity by correcting the action of the kidneys, and thereby producing urine of a more healthy quality.

OF DIARRHŒA OR LOOSENESS. — This disease consists in frequent and copious evacuations of liquid stools, in consequence of morbid irritation of the intestines, occasioned either by acidity, putrescency of aliment, the undue use of purgative medicines, obstructed perspiration, &c. When the stools appear *white* like cream, the disease is called *cæliac passion*; and when the food comes away in an undigested state, it is termed *lientery*.

TREATMENT. — Before any decisive treatment to check a looseness be adopted, the nature of it should be well ascertained. If the system be plethoric or feverish, or there be any symptom of inflammation in the intestines or in the chest, or if it was preceded by head-ache or cold shivering, it should be considered of a critical nature; in which case the object of practice should be to assist nature, not by administering an aperient, but by attention to the general state of the body; *i. e.* if the blood-vessels be overloaded, to abstract blood, to promote the secretion of the skin by the warm vapour bath, and, in case of local inflammation or inflammatory excitement, to have recourse to a *derivative* remedy, as a blister, &c. — (*See* DERIVATIVES, p. 23.) — When the irritation in the intestines is severe, an anodyne, as the acetate of morphine or laudanum, may be necessary, not to check the disease, but to quiet the intestines, and prevent spasms. When the system is evidently relieved by the evacuation, the patient finding himself lighter, his head more clear, breathing relieved, &c., a little simple broth, with arrow root, is all that is necessary.

If the debilitating effects should indicate the necessity of checking the evacuation, it will be most prudent to administer a gentle emetic of ipecacuan powder, and afterwards fifteen grains of rhubarb powder, in a little simple cinnamon-water, with the view of removing any irritating matter from the stomach and intestines, prior to the use of an astringent medicine. The cure may be then completed by the Astringent Mixture (B), p. 112, and the occasional employment of the Narcotic or Anodyne Clyster, p. 104. If the skin be dry and hot, two grains of ipecacuan powder, with five drops of laudanum, should be taken at bed-time, in a little simple peppermint-water. If these fail to produce perspiration, the warm bath to about 100 degrees (Fah[illegible] or the warm vapour bath to the degree of about 110, [illegible]

proper. After the complaint is effectually checked, a wine-glassful of the decoction of the Iceland liverwort, p. 132, should be taken three times a day, or two tea-spoonsful of the tincture of rhatany root, or of Angustura bark, three times a day, in a little water, for the purpose of strengthening the stomach and intestines.

The combination of animal and vegetable jellies, recommended under the head of ARROW ROOT, page 156, affords the best diet.

Mulled wine, so frequently given in these affections of the bowels, by becoming acid, often aggravates the looseness, and produces griping pains. People subject to this complaint should wear flannel next the skin.

Such as indulge in the too free use of the bottle are very liable to purgings from morbid irritability of the intestines, or vitiated secretion from organic mischief: in such case, after the operation of an emetic of ipecacuan powder, and a gentle dose of rhubarb powder and magnesia, the following medicines may be given with great advantage: —

Take of Alcalised Mercury, - - ½ drachm.
Opiate Confection, - - 1 drachm.
Mix; and divide into eighteen pills, of which three may be taken every night:

and a wine-glassful of the following mixture three times a day: —

Take of Decoction of Iceland Liverwort (p. 132),
Lime-water, of each, - - 6 ounces.
Compound Tincture of Rhatany Root, 1 ounce.
Mix.

The salutary effects of this treatment will be of short duration, unless the patient observes a regular mode of living.

Alumine, in the dose of five or eight grains with a little gum arabic, two or three times a day, has been found very beneficial in cases of chronic looseness. This article is precipitated from a solution of common alum by pure potass.

People predisposed to pulmonary consumption are very subject to diarrhœa, and in them it generally proves very obstinate; and, when imprudently checked by astringent medicines, is generally succeeded by cough, and other symptoms of incipient consumption. In such patients, instead of restraining it, we should moderate it by the mixture recommended under the head of lime-water: and as it abates, we should also attend to the state of the lungs.

We should likewise carefully observe the *effects* of diarrhœa on the system when attendant on fever. When fever prevails, looseness should be considered an effort of nature to unload the system; and in such case, when checked, it is generally suc-

ceeded by some local mischief, as inflammation of the brain, lungs, or bowels. Under the head of Compound Cretaceous Powder, page 77, I have made some observations on the critical purgings of fever.

People subject to irritation in the bowels on change of weather, passions of the mind, or on any slight deviation from an accustomed mode of living, should wear flannel next the skin.

DISTINCTION. — This disease is distinguished from *dysentery* by the discharge of *fæces*, which in dysentery is rare, and only in a hardened form, the evacuations being chiefly and sometimes entirely slime, having, instead of the fæcal smell, a peculiarly earthy odour. When considerable irritation exists in the intestines, the evacuations will often be very slimy in cases of looseness; but the *fæcal* discharge is always thin, whereas in dysentery the fæces are in hard lumps.

When a patient complains of diarrhœa or looseness, the practitioner should not only enquire as to the quantity of the fæces, but the nature of the discharge. When the evacuations are occasioned by irritation in the rectum, the quantity is often very small; and in such case, instead of administering an astringent, an aperient medicine may be necessary; the motions, although frequent or numerous, not amounting to a proper quantity in twenty-four hours. If, instead of fæces, slime only be evacuated without griping pains, but considerable irritation in the rectum, and bearing down at the time of the evacuation, the disease is tenesmus.—(*See* TENESMUS.)

For the PURGING of CHILDREN, *see* TREATMENT of CHILDREN, in the Appendix to the Second Part.

Practical Remarks. — The irritation of intestines in diarrhœa is of three kinds, viz. inflammatory, simply irritative, and organic mischief, or ulceration. The first occurs in plethoric constitutions, the second in debilitated systems, and the last in elderly subjects. In the first instance, it should not be checked, but means employed to reduce the system by bleeding — (if acute pain and rigours and fever come on, we may conclude inflammation has taken place, in which case the treatment recommended for inflammation of intestines should be adopted). In the second case, after removing offending matter from the intestinal canal, stringents should be employed; and, in the last case, the mixture of lime-water, &c. is the best remedy, by quieting the local disease.

OF DROPSY. — This disease consists in an effusion of serum in different parts of the body, in consequence of general or local weakness, or a mechanical obstruction. Collections of serum are often the effects of an increased effusion from the exhalent vessels, or diminished action of the absorbents.

Local dropsy is frequently occasioned by an enlargement or induration of some organ, mechanically interrupting the free return of blood to the heart: thus an impregnated womb, by compressing the large veins that convey the blood from the lower extremities, is a frequent cause of œdematous swellings of the legs. Induration or enlargement of the liver* will, in the same manner, produce dropsy of the belly; and a polypus in the right ventricle, or ossification of the valves of the heart will produce an effusion of serum in the chest.

Effusion of serum is also not unfrequently the consequence of increased arterial action, attended with a state of the system of blood-vessels the reverse of that generally termed the *dropsical habit*, in which an opposite mode of treatment is necessary.

Some authors supposing that the *science* of medicine consists in the multiplication of technical terms, enumerate many species of dropsy, according to the part of the body in which the effusion occurs. When it takes place in the cellular membrane, immediately beneath the skin, it is termed *anasarca;* when in the cavity of the belly, *ascites;* and in the chest, *hydrothorax;* but the whole of such collections fall under the general denomination of dropsy, and when produced by debility, require the same method of treatment. The symptoms of *anasarca* are, an uniform pale and often shining distention of the skin, generally of the legs, at first soft, and readily receiving the pressure of the finger. The swelling, during an horizontal position for some hours, is much diminished, and the face becomes puffed. It gradually extends itself upwards, till it occupies the thigh and trunk of the body, and sometimes even the head, attended with scarcity of urine, which is always high coloured. When it occupies the belly, the enlargement begins at the bottom, and gradually increases upwards, attended with a sense of weight and an evident sense of fluctuation on a sudden motion of the body. As the enlargement increases, the breathing becomes difficult, and the cellular substance of the legs distended. When the effusion is in the cavity of the chest, there is always, more or less, a sense of anxiety about the heart, a difficulty of breathing, which is increased by lying down, a dry cough, palpitation of the heart, paleness of the face; and when far advanced, the legs swell, and a fluctuation is perceived by the patient on any sudden shake of the body.

Treatment. — The removal of the collected water, and restoration of the tone of the system, are the only objects to accomplish in the cure of this disease, when the cause is merely weakness. The first should always be attempted by internal medi-

* This diseased state of the liver is generally the effect of the abuse of spiritous and vinous liquors. Dropsy thus produced is commonly the harbinger of death.

cines, in preference to surgical operation or blistering, because, when the stamina are not materially reduced, considerable collections of serum in the abdomen and in the chest have been entirely removed by medicine; and when it does not succeed, it increases the chance of recovery after an operation, by improving the general health. For this purpose, the bowels should be emptied by a full dose of the basilic powder, and the following day the Antihydropic Pills (A or B), page 116; or if they should operate too much on the bowels, the Diuretic Pills, page 117, and a wine-glassful of the Tonic Mixture (A or B), page 115, three times a day.

The basilic powder should be repeated about twice a week, if the bowels should not be sufficiently relieved every day.

The Emetic Draught, page 106, may also be given two or three times a week. An emetic not only increases the action of the absorbent vessels, but is a powerful remedy in the removal of visceral obstruction. A speedy absorption of the water of dropsical swellings is often produced by spontaneous vomiting. —(*See* EMETICS, page 27.)

When the legs are swelled, they should be well rubbed with camphorated oil, and very fine flannel. Electric sparks, by stimulating the absorbent vessels, have also proved beneficial. If the legs only are affected, flannel rollers regularly applied from the toes to the knees, will prove very beneficial; but when the thighs and belly are enlarged, no real advantage will be derived from this practice.

If the collection of serum should not be evidently diminished by this treatment in the course of three weeks, if the fluid be seated in the cavity of the belly, it should be drawn off by an expert surgeon; and if the extremities be the seat of it, small blisters or scarifications * may be employed, at the same time continuing the use of the tonic mixture. Numerous punctures through the skin by a needle have lately been made, in cases of dropsy of the lower extremities, with the most decided advantage, the serum escaping from them in considerable quantity. This practice is not so likely to occasion gangrene as scarifications or blistering.

From the supposition that the condition of the skin of a dropsical patient is changed from a perspiring to an imbibing state, it has been proposed to besmear the surface of the body with oil.

In advanced cases of general dropsy, I have found the inhalation of vital air, with the internal use of steel, rhatany root, and the occasional exhibition of the basilic powder, to prove completely successful in restoring the patients to health.

* These means should not be employed without the sanction of an experienced practitioner.

To produce any salutary effect in this disease by vital air, the patient should at least inhale four gallons daily. In the fourteenth number of the Monthly Gazette of Health, directions are given for making this air, by a simple apparatus.

The diet should consist chiefly of animal food, either roasted or stewed down into soup or rich broth; and the beverage, good Port wine, or the Holland spirit of juniper (commonly called gin), which, mixed with the imperial drink, noticed under the head of Cream of Tartar, will promote the operation of the medicines, by increasing the secretion of urine. The common practice of confining dropsical patients to a limited use of liquids, has never, I believe, been attended with any advantage. Dr. Cullen observes, that he has seen it carried to great length without any manifest benefit to the patient, while on the contrary the practice of giving drink very largely has been found not only safe, but very often beneficial. The late Dr. Millman recommended large quantities of watery liquids for the cure of dropsy. Not only from the instances he mentions from his own practice, and from that of several eminent physicians in other parts of Europe, but also from many cases on the records of physic, of the good effects of drinking large quantities of mineral waters in the cure of dropsy, I can have no doubt of the practice being very often extremely beneficial, by promoting the operation of diuretic medicines.

Exercise, as walking, riding either on a horse or in a carriage, or swinging, is a necessary auxiliary to medicine. It should always be to the extent the patient can bear without fatigue.

Dropsical swellings of the legs, attendant on pregnancy, may be relieved by flannel rollers, friction, and supporting the legs on a sofa or stool, and by keeping the bowels regularly open, by gentle doses of rhubarb, or lenitive electuary.

When the effusion of serum is evidently the effect of increased arterial action, a species which frequently follows scarlet fever, abstraction of blood and the tincture of foxglove, in the dose of fifteen to thirty drops two or three times a day, will be proper. The bowels should be occasionally well emptied by a dose of the basilic powder. In this case a low diet will be necessary. When the arterial action is sufficiently reduced, the cure may be completed by the infusion of Peruvian bark, with thirty drops of the sweet spirit of nitre in each dose.

Distinction.—Dropsy of the belly may be distinguished from pregnancy, by being a regular enlargement of the belly, whereas that of pregnancy is generally evident on one side. The motion of the child is, after the fifth month, perceptible, on placing the hand on the bowels. In pregnancy, the breasts are also enlarged, and often painful. Dropsical females seldom experience an interruption in the menstrual evacuation, unless

the powers of the system be very considerably reduced. Dropsy of an ovary is not so easily distinguished from pregnancy. By its progress, the state of menstruation, and general health of the patient, a medical man may be enabled to distinguish it from pregnancy.

Practical Remarks.—The causes of Dropsy, which are very numerous, are so opposite in their nature, as to require opposite modes of treatment. The accumulation of serum is sometimes the consequence of general relaxation and debility, sometimes of the mechanical operation of an enlarged and indurated organ, and sometimes of increased action of arteries, or over-distention of the system of blood-vessels; and being influenced by such a variety of untoward circumstances, it is impossible to lay down general rules for its treatment. When it is attended with a diseased liver, mercury should accompany the use of tonic medicines, as directed under the head of Diuretics, p. 25, and Calomel, p. 82: when the cause is doubtful, and when the patient is advanced in life, we should have in view the improvement of the general health (as directed under the head of INDIGESTION); to promote the secretion of urine, as suggested under the head of *Squill Pill;* and to support the parts most affected by friction, and the gentle pressure of a roller: and when the consequence of increased action of the arterial system, or overloaded state of the veins, abstraction of blood will be proper.

OF DYSENTERY.—This disease generally occurs in summer and autumn, about the time autumnal intermittent and remittent fevers appear, with which it is often complicated. When attended with a discharge of blood, it is vulgarly termed the *bloody flux.* It is probably a specific inflammation of the internal membrane investing the intestines, particularly of the colon and rectum, occasioning a considerable morbid secretion of mucus.

SYMPTOMS.—This disease consists in frequent evacuations of slime or mucus from the intestines, often mixed with blood, and when attended with the natural fæces, they are generally in a compact and hardened form. The motions are generally small, accompanied with very severe griping, and followed by a bearing down and considerable irritation of the anus. With these symptoms there are a loss of appetite, sickness, and sometimes vomiting, and the patient sooner or later becomes affected with a fever, which is sometimes inflammatory, and very often of a putrid kind. This disease is more frequent in warm than in cold climates; and from its infectious nature, is often epidemic in camps and other places.

CAUSES.—Putrid air or aliment, fruit, the too frequent use of fermented liquors and strong cathartic medicines, and what-

ever is capable of increasing the irritation of the intestines, are the causes of this disease.

From the dissection of patients who have died of this disorder, the internal coats of the colon and rectum have been found affected with inflammation and its consequences, viz. ulceration, gangrene, contractions, and thickenings.

TREATMENT.—In the cure of dysentery, the first objects are to empty the stomach by an emetic of twenty grains of ipecacuan powder, and the intestines by the Epsom salt, in the dose of half an ounce, dissolved in a little peppermint-water. After these medicines have duly performed their office, in order to allay the increased irritation of the intestines, and to produce a determination of perspirable matter to the skin, two grains of ipecacuan powder, with six drops of laudanum, may be given every three hours. A lavement made of starch, administered twice or thrice a day, will also prove serviceable, by sheathing the inner surface of the large intestine, and by acting at the same time as a fomentation.

When the pulse is full, hard, and strong, or when the system is in a plethoric state, the loss of blood from the arm may be necessary: but when it is in the first instance not attended with fulness of habit, or inflammatory action, or when the constitution is much reduced by it, it will not be proper. If the pain in the bowels be violent, a warm bath and a large blister to the abdomen will be necessary. The diet should chiefly consist of vegetable jellies, as arrow-root, sago, tapioca, &c. &c.

When the violence of the first symptoms has abated, and the system is in a quiet state, the following powder taken three times a day in a tea-cupful of the decoction of the Iceland liverwort, will complete the cure:

Take of Ipecacuan powder - -	1 grain.
Rhubarb Powder - - -	4 grains.
Cinnamon ditto - - -	4 grains.

Mix.

If, after one or two days' trial of this medicine, the symptoms should not considerably give way, eight grains of the compound cretaceous powder, and five drops of laudanum, may be substituted for the rhuburb powder.

Several astringent and bitter medicines, are recommended in this period of the disease, such as the *Simarouba bark*, *Columbo root*, *Cascarilla*, and *Peruvian bark*; but I have found none of them to answer so well as the Iceland moss. Dr. Cheston, of Gloucester, has noticed a very obstinate case of dysentery, which resisted all other remedies, that was effectually cured by it.

If the disease should not give way to the above treatment, some visceral obstructions or ulceration of the intestinal tube

may be suspected; in either case, five grains of alkalised mercury, with five drops of laudanum, in a tea-cupful of the Iceland moss decoction, twice a day, generally prove very beneficial. The application of the Euphorbium, or Burgundy pitch plaster, over the bowels, and the warm vapour bath, will also be proper, and may prevent serious mischief. The patient should avoid the use of acids, and vinous or spirituous liquors.

Opium should not be employed in this disease until a free evacuation of the bowels has been procured by aperient and emetic medicines, as it generally increases the inflammatory state of the system; if, however, the patient suffer by acute pain in the bowels, it cannot be entirely dispensed with. Five or six drops of laudanum may in that case be administered with the Aperient Mixture, page 111.

When the morbid irritation has ceased, the rhatany root will prove very beneficial in promoting digestion and restoring tone to the intestines. It may be given in the following manner: —

Take of Extract of Rhatany Root, -	1 drachm.
Aromatic Tincture of ditto, -	6 drachms.
Pure Water - - -	7 ounces.

Two or three table-spoonsful to be taken every four hours.

The treatment of this disease must in a great measure depend on the *nature* of the fever accompanying it, and in all cases must be varied according to the predominating symptoms, &c. As the fever in general is of an ambiguous nature, it will be advisable to call in regular assistance in the first instance.

This disease, attended with typhus fever, is often epidemic, and is no doubt often propagated by the effluvia arising from the stools of the patient. The fæces should therefore not remain in the house, but immediately be conveyed to some distance, and the vessel afterwards washed with vinegar. The room should likewise be often fumigated with nitrous vapour (see page 195), which will not only prevent the disease from spreading, but contribute considerably towards the recovery of the patient.

If the disease be complicated with intermittent fever, the rhatany root, or Peruvian bark, should be employed in the earlier stages of the disease: great care should be taken not to confound the rigours generally attendant on dysentery with intermittent fever, which would lead to the maltreatment of the disease. In all cases, flannel should be worn next the skin.

Distinction.—This disease may be distinguished from diarrhœa, not only by being attended with a greater degree of fever and pain in the bowels, but particularly by the stools consisting chiefly of a *slimy mucus;* in which the natural fæces are seldom observable; and when they are, they are in hard pieces or lumps.

OF EPILEPSY.—In consequence of the patient suddenly falling to the ground, on an attack of this disease, it is also called *Falling Sickness*; and from its affecting the mind (being the most noble part of the rational creature), it is termed, by the ancient writers, *the Sacred Disease*.

SYMPTOMS.—It consists in an involuntary and violent convulsive contraction of the greater part of the muscles under the immediate influence of the mind, particularly those of the extremities, the eyes, the tongue, the lower jaw*, and the bladder, attended with foaming at the mouth, and total loss of sensation, and ending in a state of insensibility and apparent sleep. The patient, on becoming sensible, complains of torpor, heaviness of the head, and general lassitude. The fit often attacks suddenly, but for the most part is preceded by a pain in the head, lassitude, dimness of the eyes, and a kind of tremulous sensation, beginning in the lower extremities, often in the great toe, and ascending to the head. The fits frequently recur during sleep.

CAUSES.—The dissection of epileptic persons has shown a variety of morbid appearances, as tumours in the brain or membranes; caries or preternatural projections of the internal surface of the skull-bone; collections of serum, or purulent matter; and earthy concretions within the skull: while others, who have died of epilepsy, have exhibited no morbid appearance whatever. Aneurismal affections of the arteries of the brain, I believe to be often the cause of this disease, by the pressure and irritation produced by their distention, which often ends in fatal apoplexy or palsy, from the rupture of the aneurismal sac — a termination by no means unfrequent. It is likewise produced by the irritation of worms in the stomach or intestines, particularly the tapeworm: also by dentition, and by violent passions of the mind, both of the exhilarating or depressing kind, as anger, joy, terror, and grief.†

In children, epileptic fits are often attendant on dentition, and precede the eruption of small-pox and measles, and sometimes occur in females that are subject to a retention of the menstrual evacuation; but they more frequently proceed from an hereditary disposition. — (*See* CONVULSIONS OF CHILDREN.)

TREATMENT.—Various remedies for this disease have been recommended from the time of Galen to the present period; but experience has proved fatal to their reputation. The *ni-*

* Bystanders, unacquainted with the nature of these fits, suppose the patient to be in great agony. During the convulsion, he is in an insensible state, and his sensations on recovery are often more pleasurable than otherwise. Sometimes, however, they are the reverse, and the horror some experience remains on the mind for many days.

† Van Swieten's Commentaries, vol. iii p. 414.

*trate of silver** has lately been highly extolled as a specific for epilepsy, which, unfortunately, has not been confirmed by the experience of others, several cases having been published in which it proved of no advantage. A very great objection to the continued use of this remedy is its effects in rendering the skin of a dark copper brown, which remains for life. When the disease arises from worms, the Basilic Powder, No. 36, or the Electuary, No. 86, with the use of lime-water, and the Tonic Mixture, No. 77, will prove beneficial. — (*See* WORMS.)

When the cause cannot be ascertained, if the patient be of an apoplectic make, and of a plethoric habit of body, bleeding will be proper, but not otherwise: as the loss of blood, by inducing debility, will render the recurrence of the fits more frequent. Valerian tea, with the tincture of the Russian castor, may be tried, with the following pills: —

Take of Nitrate of Silver, - - 1 scruple.
Extract of White Poppies, - 2 scruples.
Mix well together, and divide into twenty-four pills, of which one may be taken twice a day.

If these pills afford no relief, after twelve days' perseverance in their use (for I do not conceive it safe to continue them longer, unless the patient derives very considerable advantage from them, without producing any derangement of the digestive organs or bowels), the following are worth a trial: —

Take of Vitriolated Zinc, - - ½ drachm.
Essential Salt of Bark, - 1 drachm.
Mix; and divide into twenty pills; two to be taken twice a day, with a draught of Valerian Tea.

The following bolus, much recommended by Dr. Hugh Smith, is a favourite remedy with many routine physicians: —

Take of Russian Castor, - - 1 scruple.
Oil of Hartshorn, - - 6 drops.
The Confection called Paulina, - 10 grains.
Mix, for a Bolus, to be taken every six hours.

The flowers of cardamine have been prescribed with advantage by Sir George Baker: the fresh powder may be taken, to the extent of a drachm, three or four times a day.

Mr. Hodgson, of Bishop Wearmouth, has published a case of a young girl, about eight years of age, that was cured by electri-

* When the nitrate of silver was first recommended as a specific for epilepsy, Dr. Cheston gave it a trial at the Gloucester infirmary. The first case that occurred, was a young man that had been subject to attacks twice a day for many years. After the exhibition of two or three doses, the fits suddenly left him, and he was shortly after discharged cured. He soon experienced a relapse, for which he was re-admitted, and the same medicine administered without producing any beneficial effect whatever.

city. A young lady was cured by Citizen Portal, who had experienced a fit every day. The attack commencing in one of her toes, suggested to that able anatomist the idea of dividing the nerve, for the purpose of interrupting the communication with the brain; but he began by the application of opium to it, and that alone effectually prevented a recurrence.

The good effects of calcined zinc have been attested by Dr. Haygarth of Chester, Dr. White of York, and Mr. Bell of Edinburgh.

The following prescription, for the exhibition of this medicine, is given by Dr. Saunders: —

Take of Calcined Zinc, - - 8 grains.
Conserve of Roses, sufficient to form a Bolus.
To be taken twice a day.

A treatise on the Efficacy of the Misletoe of the Oak in the Cure of Epilepsy, was published a few years ago; by which it appears, that it has been administered in three different cases of epilepsy, with complete success; all of which, it is stated, previously baffled the skill of several eminent practitioners: and the author asserts, that its exhibition has uniformly been attended with success under his directions. A case of this disease in a lady of quality, in which it proved remarkably successful, is related by Boyle; and, some years afterwards, its use was strongly recommended by Sir John Colbach, who has published several instances of its good effects. In a few cases, in which I have known it exhibited, it totally failed to produce any salutary effect whatever, while in others it has entirely suspended the disease.

As there is incontrovertible evidence that these medicines have succeeded in certain cases, and as the disease arises from such a variety of causes, they are all deserving of trial; for, in the treatment of so distressing a complaint, no plausible remedy should be left untried.

In the Monthly Gazette of Health, several remedies are recommended by eminent physicians of the continent, which should be employed if the above treatment should not succeed.

If the patient be affected with pains in the head, a seton in the nape of the neck should not be neglected, and the feet should be kept warm by the use of flannel socks.

Mr. Mansford, an eminent surgeon of Bath, has lately published a scientific dissertation on the causes and treatment of epilepsy; in which he states that he has succeeded in curing several cases of long standing, by the Galvanic fluid. The mode of application is given in the 48th number of the Gazette of Health.

The tincture of the seeds of the *colchicum autumnale* has lately been administered with great success, in cases of epilepsy of long

standing: the dose is from twenty-five to forty drops two or three times a day. It may be taken in a wine-glassful of the decoction of Peruvian bark, or infusion of the wild valerian root. The Prussic acid, in the dose of one to two drops, two or three times a day, is also entitled to a trial. — (*See* ANTISPASMODICS, p. 12, and PRUSSIC ACID, p. 175.)

The diet should be regulated according to the state of the constitution of the patient: if he be debilitated, it should be nutritious, but not stimulating. Distilled water affords the best beverage: this article, though simple in itself, may, by quieting the system, and promoting digestion, prove of more real and permanent advantage than the most potent medicines. Hippocrates judiciously directs a total change in the manners of life, that former habits may lose their influence.

The seat of this disease being evidently the brain and nervous system, whatever tends to render the body irritable will favour a recurrence of the paroxysms. A great sympathy existing between the brain and stomach, epileptic patients are more affected with fits when the stomach is disordered; hence, in all cases of epilepsy, we should pay particular attention to the state of the digestive organs, and the epileptic patient should avoid every thing that has a tendency to disagree with the stomach. When the stomach of an epileptic patient is relaxed or weak, stimulants and astringents, such as lunar caustic, flowers of zinc, &c. will often succeed in preventing a recurrence of a fit; and hence many routine physicians conclude that these remedies are antispasmodic.

When the disease arises from organic mischief in the brain, he should avoid all excesses, and particularly those which have a tendency to stimulate the body or mind. He should attend to the directions given under the treatment of INDIGESTION; and, for the purpose of allaying morbid irritation of the brain, it would be advisable to wash the head with cold water every morning, for which purpose the head should be shaved. If the patient be of a plethoric habit, an issue or seton in the nape of the neck is a very important remedy. Whether the morbid irritation of the brain be connected or not with organic mischief, or any local cause, this treatment is proper.

The power of the association of ideas is, in this disorder, very remarkable: a gentleman now resident in the city of London was always seized with an epileptic fit on entering his carriage; and Van Swieten relates a case of a child, who, after being frightened into an epilectic fit, by a great dog leaping on him, experienced a return for some time afterwards on seeing a large dog, or even by hearing his barking at a distance. It is a well-known fact, that the mentioning or recalling to the mind any particular circumstance that attended an epilectic fit, will often reproduce it.

Hence, the learned Galen very judiciously advises all things to be avoided that lead to the recalling the disorder to the memory. Others of the ancient physicians, observing how much this complaint is connected with mental affections, and how it may be reproduced by reflecting upon it, have endeavoured to abstract the mind from such ideas, by exciting impressions still more powerful. Upon this principle it was, I apprehend, advised by Pliny, for the patient to drink the warm blood of a gladiator, that issued from him in the agonies of death. Scribonius Largus directs a portion of his liver to be eaten for the same purpose; and Aretæus not only mentions these articles, but several others of the disgusting kind, as the raw heart of a coot, the brain of a vulture, &c. If these strange hideous remedies could have any efficacy, it must be owing to their absorbing the attention, and, of course, leaving no room for the apprehension and recollection of the disorder to operate; and, in this way, it is possible they may have been of service. The relics of saints, and such like trumpery, have, on the same principle, obtained celebrity in the prevention of this disease: the religious ideas connected with them, no doubt, in those superstitious times, operated powerfully on the imagination.

As the nervous system is more affected through the medium of the mind than by the effects of medicine on the body, whatever produces a serene state of mind, powerfully tends to allay irritation of the brain.

DISTINCTION. — This disease may be distinguished from apoplexy, by the convulsed *action* of the muscles; and from hysteric fits, by *not* being attended with the spasmodic contraction of the muscles of the *gullet*, giving the patient a sensation of a ball rising in it; and by the patient having *no* dread of death.

Practical Remarks. — The irritation of the nervous system in this disease arises from organic mischief or partial disease of the brain, or from the irritation of worms in the intestines. In the latter case, vermifuge medicines (*see* ANTHELMINTICS, p. 9, and WORMS), and tonics, will succeed in preventing a recurrence of the fit. When the cause is in the head, the object is to keep the system in a quiet state, and, for this purpose, a seton in the nape of the neck is the most powerful remedy; which, with such medicines and diet as the state of the body, with respect to debility and fulness, may indicate, will answer best.

OF ERUPTIONS OF THE SKIN. — Under this head I shall include the treatment of the chronic eruptions of the skin, generally, but improperly, termed *Scorbutic*.

When pimples, or pustules in the face, are the consequences

of high living, or excessive drinking, the best remedy is the sulphureous purgative salt, as directed page 132.

The scaly affections of the skin, or clusters of small pimples, unattended with fever, will gradually yield to the medicines recommended under the head of Tartarised Antimony Wine, with the topical application of Alterative Ointment (A), p. 127.

When inflammatory eruptions follow fever, they should be considered salutary, and treated *only* by internal remedies till the fever and local inflammation have subsided, when the health of the parts that have suffered may be recovered by the Alterative Ointment.

For the chronic inflammations of the skin, appearing in patches over the body, in the spring and autumn (generally termed leprosy, and by some scurvy), the following medicines I have never known to fail in the most obstinate cases: —

Take of Precipitated Sulphur of Antimony, - 1 drachm.
Prepared Calomel, - - - 15 grains.
Conserve of Hips, sufficient to form a mass.
To be divided into thirty pills. One to be taken twice a day, with a draught of the Decoction of the Sussafras Nut. — (See page 157.)

After taking the pills four days, a little Alterative Ointment (A), p. 127, should be rubbed over the parts affected, every night.

In the 143d number of the Monthly Gazette of Health, the oil of the walnut is highly extolled, as a topical remedy, for inflammatory pimples and blotches on the face. In Germany it is much employed as a preventive of eruptions, and for rendering the skin soft and healthy; and I have met with cases of inflammatory eruptions in which it proved very beneficial.

The eruption termed ringworm is too well known to require description. A very popular, and generally successful application, is common ink, the efficacy of which chiefly depends on the quantity of steel it contains. The Muriated Tincture of Steel, diluted with an equal quantity of water, is no less efficacious, and a much neater application. When it resists this remedy, the Alterative Ointment (C), p. 127, may be rubbed over the part every night and morning.

The solution of the Sulphureous Purgative Salt, p. 152, will also be very proper.

In all cases of eruptions of the skin, attention should be paid to the state of the digestive organs; for imperfect digestion is often the source of the most obstinate cutaneous affections, and never fails to aggravate them. Before, therefore, an alterative course of medicine be adopted, it will be proper to clear the first passages by an emetic, and a brisk aperient medicine, and to strengthen the digestive organs by the use of the Stomachic

Mixture (A), p. 114, or Decoction of Marshmallow Root, p. 133.

Dr. Gales, a physician residing in Paris, and Mr. Green, a respectable surgeon, of Great Marlborough Street, London, have lately recommended the application of sulphureous vapours to the body, as an effectual remedy for *all* chronic affections of the skin; and in some late numbers of the Monthly Gazette of Health several cases of leprous and other diseases of the skin, communicated by Mr. Green, cured by this remedy, have been published, some of which I have witnessed.

The diet should consist principally of vegetables; but if the strength of the system has been much reduced, fresh meat may be allowed.* Salted and fat meat, high-seasoned dishes, and spirituous liquors, should be avoided. Distilled water, or whey, or buttermilk, will afford the best beverage.

Children, from their birth till after teething, are subject to a variety of eruptions of the skin, such as the red gum, tooth-rashes, nettle-rash, watery eruptions, &c., which, although they differ in appearance, progress, and extent, seem to arise from the same cause, viz. a vitiated state of the humours, from predominating acidity in the stomach, or the milk of an unhealthy nurse. In the treatment of these early eruptions, external applications should never be employed, unless prescribed by a skilful physician or surgeon, or the practitioner be well acquainted with the diseases of infancy. Exposure to cold should be carefully avoided, and the state of the stomach corrected by small doses of magnesia, to which a little cretaceous powder may be added, in case the bowels are much disturbed. If the child be of a gross habit of body, the basilic powder will also be proper, as directed, p. 85. As the milk of the nurse is often in fault, she should take a tea-spoonful of the tincture of Columbo, with a little magnesia, in simple peppermint-water, two or three times a day, to promote digestion, and to obviate costiveness; or if disposed to looseness, in a wine-glassful of lime-water. When the scales of the eruptions of infants become troublesome from hardness, a little spermaceti ointment, or cream, may be applied to them. — (*See* RED GUM and THRUSH.)

To the various cutaneous diseases some medical theorists have given fine-sounding names, and have enumerated species and varieties which only existed in their imaginations. Their elaborate classifications have been attended with no practical utility whatever; for the authors who have expressly written on them have been the most unsuccessful in their treatment. In all cases of eruption, the first point to determine is, whether it be constitu-

* The sassafras nut, noticed page 157, affords a very nutritious and corrective breakfast and evening repast.

ional or local; and if the former, whether it be the consequence f fulness of the system, or of debility and bad digestion. When he constitution is in fault, the eruption is often of a critical nature, and should be treated by internal remedies. In the latter ase, the treatment recommended for indigestion, with the appliation of the Alterative Ointment (A), p. 127, will prove the most eneficial. The same diseases of the skin exhibit different appearances from a difference in the structure of the parts in which hey occur, and the extent or depth of the mischief, *i. e.* the disase of the scalp, termed scald head, is very different in its appearance and progress when it occurs on a tender, or irritable, r a thick skin. It again varies accordingly as it is confined to he cuticle, or extends to the *rete mucosum*, the true skin, and the ellular membrane beneath the skin. The state of the constiution also gives a difference of character. These remarks aply only to the eruptions which are not produced by contagion. The constitutional and local treatment recommended above, herefore, apply to all the diseases of the skin that do not arise rom contagion, or what are termed eruptive fevers.

Some practitioners have attributed a variety of inflammatory nd irritative diseases of the skin to the use of soap, with its austic alcali; and I am satisfied the use of the advertised soaps, which contain a great excess of caustic alcali, act as exciting auses, and keep up the morbid action. For many years I have een in the habit of recommending the Almond Powder to be ubstituted for soap, when the skin is diseased or disposed to inlammatory excitement; but latterly I have found a soap made with the oil of walnuts to succeed best: it not only destroys he predisposition of the skin to pimples, and other inflammaory affections, but renders it soft and healthy. The advertised oaps for the skin contain more caustic alcali than the common oap.

OF EXCORIATION. — When excoriation is the consequence of friction, it may be cured by applying to the surface the Spermaceti Ointment, or the Astringent Lotion (B), page 126; but in case of much inflammation, the Emollient Cataplasm, page 122, will be most proper; and, if attended with fever, or a full or bad habit of body, the Aperient Mixture (A), page 111, and Alterative Pills, page 116), will also be necessary. After the due operation of the aperient medicine, from five to ten drops of laudanum may be taken at bed-time, or twice a day, with the view of allaying pain and preventing mischief. A low diet should be observed till the inflammatory symptoms are gone off. (For the *Excoriations of Children*, see GALLING).

OF FAINTING, OR SYNCOPE. — SYMPTOMS. — A fainting fit begins with a great anxiety about the heart; the pulse

and respiration become suddenly weak, and sometimes to such a degree, as to all appearance wholly to cease, with coldness of the extremities, and death-like paleness of the face, &c.

CAUSES. — These fits are not uncommonly occasioned by excessive evacuations, particularly of blood; they are likewise produced by passions of the mind *, violent pain, impediments to the free circulation of blood, as polypus, aneurism, and ossification of the aorta; and probably sometimes the consequence of the communication between the auricles of the heart, which exist during the fœtal state, remaining entire.

TREATMENT. — When the fit is occasioned by excessive evacuations, the body should be immediately placed in an horizontal position, in a current air, and the acetic acid or spirit of sal volatile applied to the temples; of the latter of which a teaspoonful may likewise be given in a little cold water: the extremities should be rubbed with *warm* flannel, and *cold* water sprinkled over the face and neck. After the recovery from the fit, if the patient be much debilitated, he should be supported by a nourishing diet, as beef-tea, arrow-root jelly, with a little wine. When the fit arises from pain, the internal use of laudanum will be necessary, as directed, page 79, which, by allaying irritation, will in such case prevent a recurrence.—(*See* SEDATIVES, p. 41.) When fainting is produced by passions of the mind, and the patient is plethoric, the loss of blood from the arm will be necessary. If debility be the cause, the Tonic Mixture (A), page 115, should be taken; and if obstruction of the circulation, from polypus, organic disease, or morbid irritability of the heart, the Euphorbium plaster may be applied over the breast-bone, and much bodily exertion, or whatever tends to hurry on the circulation, should be carefully avoided. When it occurs in a person whose nervous system is in a state of morbid excitement, the Nervous Mixture (A), page 116, will prove beneficial. —(*See* NERVOUS COMPLAINTS and NERVINES, p. 37.) When the complaint is occasioned by uterine disorder, a common cause in females, this mixture generally succeeds in removing the cause.

Nothing conduces more to increase the morbid irritability of the nervous system, which is a cause of fainting, than a studious solicitude to avoid every thing that is likely to have that effect: it fixes the mind on the very object the patient should avoid, and by *augmenting* the effects of *trivial* accidents, multiplies the number of causes that may produce the disorder dreaded: a firm resolution to resist the effects of frivolous incidents upon the mind, and of course on the nerves, is far preferable. Haller has re-

* The effects of mental agitation in causing fainting are well known; and when violent, sometimes prevent the re-action of the system, and consequently occasion sudden death.

lated a story, where a disposition to fainting was conquered by a great exertion of the will; and almost every person has seen temporary fits of a similar kind put off by the struggles and resolution of the person attacked.

As there exists a great sympathy between the brain and stomach, people subject to fainting should pay particular attention to the state of the stomach, and avoid every thing that is likely to disorder it, or disturb the nervous system.—(*See* TREATMENT of INDIGESTION.)

OF FILMS, OR SPECKS ON THE EYE. — For the removal of films, or small specks on the surface of the eye, the Astringent Lotion (B), p. 126, dropped between the eye-lids two or three times a day, is, in general, an efficacious application. If they be attended with much inflammation, the application of a blister to the nape of the neck, the use of the Purgative Mixture (A), page 118, and the Alterative Pills, page 116, will likewise be necessary.

If the eye-water should not prove sufficiently strong, a little finely-powdered cuttle-fish bone may also be blown on the ball of the eye through a quill, every night or morning, or applied, mixed with a little honey, by means of a camel-hair pencil.

If the patient be of a scrofulous habit, or if the opacity be the consequence of scrofulous inflammation, the Antiscrofulous Mixture (A or B), p. 111, will also be proper; for although the speck or film may appear trifling, it is of great consequence to correct the system and improve the state of the general health.

OF FLATULENCE. — So general is this complaint, that very few persons are entirely exempt from it. Notwithstanding its prevalence, it has not met with that attention from the medical profession which it demands. Indeed, so little have its causes and nature been investigated, that it has been merely noticed as a *symptom* of indigestion. The gas (vulgarly termed wind) disengaged in the stomach is fixed air (*carbonic acid gas*), which escapes from badly-fermented liquors, and is uniformly a product of imperfect digestion. A collection of air in the stomach is the *effect* of indigestion; but the gas which is found in the large *intestines* is of a different kind, being carburetted hydrogene, and evidently not altogether the effect of indigestion, for it frequently occurs when the digestion is good.

The air evolved in the stomach, I shall notice under the head of INDIGESTION; but as the production of inflammable gas in the intestines is not always the consequence of imperfect digestion, but more frequently dependant on a morbid condition of the nervous system, I shall notice it here as a *primary* complaint, and, for the sake of distinction, term it *Intestinal Flatulence.*

It is extraordinary that this species of flatulency should have escaped the observation of Hippocrates, who has so minutely delineated the symptoms of diseases. Sauvage, in his Nosology, notices two species of flatulence, viz. the *acid* and the *fœtid*; but he considers them to differ only as to smell, and as arising from the same source. Nor have they been noticed by the pneumatic theorists of the present day, who have endeavoured to prove that many diseases arise from certain decompositions or combinations of airs in the human body, and are to be cured by the exhibition of different gases.

Those who indulge in the free use of spirituous or vinous liquors are most subject to this gas; and it is remarkable, that even the breath of those who are in the habit of frequent intoxication is strongly impregnated with it. This gas being a component part of vinous and spirituous liquors, it is probable that it enters the blood, and that a portion of it is discharged from the system by the lungs. I have met with patients much affected with this air, who were not *apparently* addicted to the pernicious habit of dram-drinking, or of taking wine even in a moderate quantity; but from such a circumstance no conclusive inference can be drawn; for those who do not take their cheering glass publicly, may do it privately. Dr. Trotter is of opinion, that spirit either of ale or wine mixes with the blood; "for we know," says he, "that hydrogen escapes from the lungs in such quantity as to be perceived in the breath; we are, however, ignorant what combinations this gas, or other parts of the spirit, may form with the human fluids." Dr. Baillie, in his Morbid Anatomy, observes, "it is not unusual to find air accumulated in the intestinal canal in greater or less quantity. This air is sometimes accompanied with slight inflammation of the peritonæum, and at other times not. In such cases, the blood-vessels of the intestines are frequently filled with air. There are only two ways in which we can well conceive air to be formed in the intestines. The one is some new arrangement in the *contents* of the intestines by which air is extricated; the other is, the formation of air in the *blood-vessels* of the intestines, by a process similar to secretion, and which air is afterwards poured out by the extremities of the exhalent arteries into the cavity of the intestines. That the blood-vessels have this power there can be no doubt; and I own," says the Doctor, "that this is a very frequent mode by which air is accumulated in the intestines." Of the nature of this gas, Dr. B. does not give a decided opinion; but observes, "that it requires to be examined by some person well acquainted with chemical experiments, in order that its quality may be ascertained."

Nervous and hypochondriacal patients appear to suffer so considerably from accumulation of this gas in the intestinal canal, that they in general experience great relief when it passes downward freely. Even violent head-ache, stupor, palpitation of the heart, horror of mind, dimness of sight, noises in the ears, nervous twitchings, dryness and heat of skin, and a variety of other symptoms, have been speedily relieved by its expulsion.

Invalids who are most subject to an accumulation of inflammable gas are liable to head-ache, rheumatism, and gout, on change of weather, and particularly on the approach of rain. — (*See* HEAD-ACHE.)

TREATMENT. — The first object in the treatment of this complaint is, to empty the intestines by an active aperient medicine that will carry off the morbid slime adhering to the coats, and at the same time excite an healthy action in the mucous glands. For this purpose calomel will answer best, three grains of which may be taken at bed-time (made into a pill with a little conserve of hips), and purged off the next day with the Aperient Mixture (A), p. 111. These medicines should be repeated at least twice a week for a fortnight. In the intermediate time, the Tincture of Ginger and Camomile, page 61, or the Tonic Mixture (A), page 115, or if the patient be of a leucophlegmatic habit, the Tonic Mixture (B), in the same page.

If the constitution has suffered from the free and continued use of spirituous liquors, the patient should continue to take the latter mixture for at least three or four weeks. If the patient be of a nervous temperament, the Nervous Mixture (C), p. 113, may be substituted for the Tonic Mixture.

The Jamaica ginger powder is the best carminative that can be used in this case, as it not only effectually expels the gas, but, I believe, also corrects the secretion of the intestines, and, by stimulating their inner coat, it occasions them to throw off any accumulation of mucus; thus, the fæces of people in the habit of using it are generally covered with slime.

The application of cold water to the head every morning by pumping on it, or applying to the crown a wet napkin for five minutes, has, in several instances, proved highly beneficial, probably by allaying morbid irritation of the brain, and, of course, of the whole nervous system.

It is scarcely necessary to observe, that the patient should abandon the use of spirituous or vinous liquors; if not immediately, at least by degrees, if he be desirous to obtain permanent relief. (*See* Means of curing the habit of DRUNKENNESS, p. 213.)

It is a very common practice with routine physicians to desire their patients, troubled with this complaint, to abstain, as much as possible, from a vegetable diet. I have known this advice

very strictly followed; but I have not found that the patients have been benefited by it: nor is it to be expected, from the nature of the gas, that they would; for the fixed air disengaged from vegetables rather corrects it than otherwise. Indeed, water saturated with fixed air, as the soda water, I have found an excellent palliative, and evidently to correct its fœtor. People that overload their stomachs with animal food are certainly more troubled with this species of flatulency than those who chiefly live on vegetables. A proper admixture of vegetable and animal food I have found best to agree with such patients, and pure water as a beverage.

The cordial medicines of quacks, or what is the same thing, ardent spirits and wine, afford flatulent patients a temporary relief, by expelling the air contained in the intestines: they, however, afterwards, supply it in greater quantity to the blood; and a patient, encouraged to persevere in the remedy from the transitory relief it affords, does not discover his error till his constitution has so far suffered, that an increased dose of the cordial becomes absolutely necessary to keep up the powers of the system. The mischief that flows from the polluted source of dram-drinking is incalculable. The most robust constitution will give way to it; and when it does not rapidly undermine the system, it leads to other excesses, which, in process of time, will infallibly produce premature death. To say the least of the deleterious effects of dram-drinking, how completely does it frustrate the great ends of social intercourse, the promotion of harmony, and the attainment of knowledge —

"That feast of reason, and that flow of soul!"

How justly, then, may we exclaim, in the emphatic language of the immortal Shakspeare, "Every inordinate cup is unblessed, and the ingredient is a devil!" — (*See* NERVOUS DISEASES, and INDIGESTION.)

The 141st and 142d numbers of the Monthly Gazette of Health contain a very excellent article on the baneful effects of a regular indulgence in the use of vinous and spirituous liquors on the body and mind, and on the means of conquering this irrational habit, which I hope to see published in a cheap pamphlet, and circulated throughout the country.

OF GOUT. — This well-known disease is divided into *Regular* and *Irregular*. When it occurs in an extremity to a proper degree, and gradually disappears, after a duration of a few days, leaving the patient rather in an improved state of health than otherwise, it is termed *Regular*.

Of the *Irregular* there are three species; viz.

1st, *Atonic*. — When there is not power in the nervous system

to produce a sufficient degree of inflammation in the extremities; in this case, the organs of digestion are impaired, and the general health variously affected.

2dly, *Retrocedent.* — When the inflammation in the joints is light, and suddenly abates, and occurs in an internal part. And,

3dly, *Misplaced.* — When it takes place in any of the internal parts.

OF REGULAR GOUT. — This species of inflammation rarely occurs till the age of thirty-five, unless the hereditary predisposition be very strong.* It attacks sometimes suddenly, but is generally preceded by symptoms of indigestion, as flatulence, loss of appetite, cramp in the stomach, &c., and sometimes by headache, stupor, numbness, a sense of pricking in the thighs and legs; the day preceding the attack, the appetite generally returns much keener than usual. The fit comes on sometimes in the evening, but generally about two or three o'clock in the morning, and, for the most part, in the spring of the year. The ball of the foot, or joint of the great toe, is commonly the seat of regular gout, the pain and inflammation of which uniformly increase, with more or less of a shivering, which abates as the pain becomes more violent, and is succeeded by a hot stage of the same duration as the pain, and with it gradually declines, when a gentle perspiration comes on, and the patient falls into a much-desired sleep.

CAUSES. — A sedentary indolent manner of life, full diet, especially of animal food, and the excessive use of weak or light acid wine and spirituous liquors†, are enumerated by authors as causes of gout.

TREATMENT. — The treatment of this nervous inflammation in the extremities, or what is termed the gouty paroxysm, must be regulated by the state of the constitution. If the general health of the patient be good, or if it were not preceded by symptoms of indigestion (as flatulence, cramp in the stomach, &c.), the bowels should be well emptied by the Cathartic Pills,

* Hippocrates observes, that women seldom have the gout, and never before the age of forty-five. In his time and country, perhaps the ladies were more temperate than they are in the present state of *modern refinement.* It appears, however, that the gout was a familiar disease among the Roman ladies; which Seneca justly ascribes to the luxurious living and debaucheries in which they indulged without control.

† This disease, the frequent companion of wealth and indolence, has been so often induced by the excess of wine, that in every age it has justly been styled the offspring of Bacchus. This fact is sufficiently substantiated in the records of medicine; for gout is seldom or never seen in the habitations of poverty and labour. In youth, hard drinking is particularly injurious; it brings on premature decay, and, more than any other cause, paves the way for the diseases of age before the meridian of life!

No. 46, p. 89, after which three table-spoonsful of the following mixture may be taken three times a day: —

Take of Camphorated Julep,	- -	12 ounces.
Subcarbonate of Ammonia,	-	2 scruples.
Sweet Spirit of Nitre*,	- -	3 drachms.
Mix.		

The immersion of the extremity in cold water for ten minutes, as recommended by Dr. Kinglake, in *this case*, is generally very beneficial; and may, in a *healthy* constitution, assist Nature in the recovery of the tone of the nerves. The application of warm water, by affording a conducting surface, is equally efficacious, and less hazardous; for cold, when attended with debility, may prove injurious.

A tincture of the meadow saffron root (*eau médicinale*), has lately been introduced as a specific for gout; and, by reducing the sensibility of the nervous system, has, in many instances, succeeded in terminating the paroxysm: but the apparent advantage obtained from it in elderly subjects is a dearly-purchased truce, the inflammation generally returning again in a few weeks; and, if the gouty paroxysm be kept off by a repetition of the medicine, a degree of nervous debility is induced, often amounting to palsy, and not unfrequently terminating suddenly in death. The application of cold water to the part, in a debilitated habit, is not less dangerous.

The tincture of the *seeds* of the meadow saffron has lately been much recommended by Dr. Williams of Ipswich, as a safe and efficacious remedy for gout. It may be taken from thirty to sixty drops once or twice a day, or about an hour before the expected recurrence of a paroxysm, in a wine-glassful of simple peppermint water or camphorated julep. In young, or very healthy subjects, this remedy I have often found to prove very beneficial; but in elderly subjects, or patients of leucophlegmatic habits, although not advanced in life, it is as dangerous a medicine as the *eau médicinale*.

If the stomach be much affected with flatulency, cramp, or vomiting, or the constitution be impaired by repeated attacks, or irregular or free living, half an ounce of the volatile tincture of guaiac gum may be added to the above mixture; and if acidity prevail in the stomach, two drachms of prepared natron. If the patient be advanced in years, or in a very debilitated state, the Antiarthritic Mixture, p. 110, will answer best.

If the pain be very violent, a few drops of liquid laudanum may be given at bed-time. This medicine, by weakening the

* The sweet spirit of nitre should be fresh, and well prepared; otherwise, by decomposing the subcarbonate of ammonia, it will destroy the property on which its efficacy depends.

powers of the stomach, often prolongs the fit; and it is not an uncommon occurrence, after a full dose of laudanum, for the gout to attack the stomach, and disorder the brain, so as to threaten the life of the patient. It should not, therefore, be employed, unless advised by an experienced practitioner, particularly when attended with general debility of the system. The Solution of the Acetate of Morphine, page 151, is much safer, and certainly more efficacious in procuring ease, in cases of gout, than the common laudanum. By its use, a respite of a few hours may be obtained; but the probability is, that it will prolong the fit some days, or even weeks.

When the gout attacks the stomach, or when it occurs in a debilitated habit, warm cordials are necessary, as the cardamom, peppermint, or aniseed cordials, ether, or tincture of ginger. The feet should likewise be immersed in warm water, and afterwards well rubbed with flannel.

With respect to applications to gouty inflammation, various opinions have been maintained by physicians, both ancient and modern. If the patient be plethoric, and his constitution but little impaired, the extraction of blood from the part by leeches or scarifications generally abates the pain, and shortens the paroxysm; but in people far advanced in years, or of weakly constitutions, death has been known to follow even the loss of a few ounces of blood. A blister near the part has been much recommended by Dr. Rush, and is much safer, and, perhaps, not less efficacious than topical bleeding; but when the limb is slightly affected with swelling of an œdematous kind, blistering is a dangerous experiment.

The immersion of the limb in cold water affords more speedy relief than any other application; and I have known many instances in which it has proved highly beneficial; but the cases were in a great measure local, being attended with no affection of the stomach, and the constitution, in other respects, healthy. It is in such cases that it has proved of such immediate and essential benefit in the practice of others; but when the constitution is debilitated, and especially when the paroxysm is preceded by a disordered state of the stomach or head, it is an Herculean remedy; and, if it do not cure the patient, it will probably kill him.

A gentleman, who has for many years been a great sufferer by gouty inflammation, has lately applied to the inflamed part a liniment, composed of two ounces of olive oil, and two drachms of the vitriolic acid, with great success. In a few hours after using it, although at the time confined to his bed, he has been able to walk with ease. This application, by producing a moist surface, and by assisting Nature in her operation, by gently sti-

mulating the nerves, I have found very beneficial. Diluted muriatic acid has been found to afford relief, probably in the same manner.

In a late number of the Gazette of Health a correspondent states, that he has found camphorated olive oil, applied over the part, and the exposure of the limb to the atmosphere, to have a very happy effect in hastening the termination of a paroxysm, and in assuaging the anguish of the pain.

An American physician, some time since, recommended the hop as a remedy for gout. Being an anodyne, it may, in some degree, diminish the pain; but as a stomachic medicine, it is very inferior to the Alcaline Tincture of Fumitory, p. 151. It has been observed by an experienced physician, that gouty people, who have been in the habit of using malt liquor strongly impregnated with the virtue of the hop, generally die suddenly.

Gouty subjects are much affected with inflammable gas in the intestines, the expulsion of which uniformly affords relief; and it is not unworthy of notice, that this air is discharged from the system in greater quantity as the fit approaches to its termination; its free expulsion I have, therefore, always considered of a favourable import. The prevention of such an accumulation is certainly of some importance in the treatment of gout. The Jamaica ginger powder, for this purpose, has answered much better than any other aromatic, on account of its warming and invigorating the stomach and bowels, without increasing that feverish state of the constitution which spirituous liquors and the spices, which abound with an essential oil, are very liable to do. The Jamaica ginger has been much esteemed as a remedy for gout by some practitioners; and instances have been adduced, in which it proved highly beneficial, particularly in the case of Sir Joseph Banks, by Mr. Stenhouse, which brought it into general use. In the prevention of gout, it is a very valuable medicine; but, during the paroxysm, or when the system is attended with much fever, or plethora, the propriety of exhibiting it in the dose recommended by Mr. Stenhouse is much to be questioned.

Dr. Wilson of Yoxford, in his Treatise on Gout, recommends a tincture, which he states to manifest a specific action on gout, and to improve the general health. This tincture the author has found to allay pain, and speedily to restore patients to health. Some cases of cures, effected by it, are published in the Monthly Gazette of Health. Dr. Balfour of Edinburgh recommends friction and percussion as the most effectual means to cure the fit and prevent its recurrences; and several cases appear in the first volume of the Gazette of Health, in which this treatment completely succeeded. This practice was adopted

by Admiral Henry, on his own person, thirty years ago, and by perseverance the Admiral succeeded in subduing the disease, and at this time, although nearly arrived to the age of ninety, enjoys a good state of health. The part affected should be gently rubbed with the hammer described under the head of Rheumatism, and the pressure increased gradually till the patient can admit of its being gently beaten with it. In the 11th and 12th numbers of the Monthly Gazette of Health, instructions are given for using the hammer, and cures related, illustrative of the permanent good effects of the practice.

Gout being evidently an inflammation of nerves, the passions of the mind have very great influence on it. Van Swieten relates, from Hildanus, that a man, disguised to represent a ghost, or spectre, took another, labouring under a gouty paroxysm, out of his bed, and carried him upon his back down stairs, dragging his feet and legs, which were the seat of his pain, down the steps, and placed him at last on the ground. The man thus treated immediately recovered the use of his limbs, and ran up stairs again with great swiftness, and under the strongest impression of terror. After this incident, he lived many years free from any symptom of the gout. This celebrated author also relates a case of a man being cured by joy. "A person," says he, "who had for forty years been afflicted with the gout, was condemned to capital punishment, and in consequence thereof led to execution. Just when he expected death, he received an unhoped-for pardon, which affected his limbs in such a manner as to restore to them activity and strength, whereas, before that event, their use was nearly lost:" this person, as well as the other, lived many years totally free from the gout; and that celebrated physiologist, Haller, quotes a case still more extraordinary, of a cure of the gout by a violent fit of anger. From the influence of the mind on gout, we learn that it is a disease of debility; for the stimulating passions are uniformly beneficial, while the depressing passions are not incapable of bringing on the paroxysms by prolonging it. These effects favour the theory of Cullen, of the inflammation being an operation of nature, to restore vigour to debilitated or impaired nerves.

With respect to the management of the mind during a paroxysm of gout, the most judicious practice is, perhaps, not to excite, but to moderate, such passions as are symptoms of the disorder itself; and to endeavour to restore, by any safe means *, that calmness and tranquillity of mind which those

* Charms were as much in use for the gout among the physicians of antiquity, as for any other disease; and, perhaps, when we consider the periodical nature of the complaint, we may not entirely discredit their efficacy.

who are subject to the gout experience on the going off of the fit.

REGIMEN. — The diet, during a paroxysm of the gout, must be regulated according to the patient's accustomed mode of living, the state of the constitution, and the violence of the symptoms. If the patient be advanced in life, or of a leucophlegmatic habit, and has been in the habit of indulging in high-seasoned dishes, and the free use of spirituous and vinous liquors, this is not the time to abandon them entirely, particularly if he be affected with symptoms of indigestion, or the powers of the system be reduced by repeated attacks of gout, or age: they, however, should be taken in moderation. If the patient be in the prime of life, or of a robust or plethoric habit, a low regimen should be strictly adhered to, and an abstinence from spirits and fermented liquors should also be enjoined.

Distilled water is recommended as a common beverage for gouty patients by Dr. Lambe, who has published some cases, in which its adoption was attended with the most decided and permanent advantage.

When any swelling or stiffness of a joint remains after the fit has ceased, it may be removed by the diligent use of the Galvanic brush (p. 158.); gentle exercise of the parts; and, in case it prove obstinate, the following liniment may be well rubbed over the part for half an hour, and afterwards washed off with warm water, and the part wiped dry: —

Take of Olive Oil, - - - -	1½ ounce.
Cajeput Oil and Vitriolic Acid, of each - -	2 drachms.

Drop the Vitriolic Acid into the Olive Oil by degrees, and after every ten drops, shake the bottle, and then add the Cajeput Oil.

To re-establish the health after the paroxysm has run its course, and when the disease becomes languid, or, as gouty patients of languid constitutions frequently observe, hangs on them, the Tonic Mixture (A), p. 115, may be taken with great advantage.

PREVENTION. — The prevention of gout may be best effected by regimen, and by attention to the digestive organs. Temperance, and exercise proportioned to the strength of the patient, will conjointly prove the best preventive. Accustomed habits of high-seasoned dishes, and spirituous and vinous liquors, by over-stimulating the nervous system, and secondarily inducing nervous debility, should be *gradually* abandoned, particularly if the patient be advanced in life, or his constitution much debilitated. As the quality of cordials and rich dishes is diminished, so should the degree of exercise be increased. If a gouty patient have resolution to avoid the temptations of the table, and to reduce by degrees the quantity of wine to two

lasses a day, he may still have little cause to regret his former ıdulgences. Particular attention should be paid to the state of ıe digestive organs, and especially to the prevention of acidity ı the stomach: on any symptom of indigestion, it would therere be advisable to take a dose of the Aperient Pills, p. 89, and the ompound Tincture of Ginger and Camomile, number 7, p. 61, :casionally, or a small tea-spoonful of Ginger Powder, two or ıree times a day. It would also be proper to avoid all kinds of rmented liquors, and to take for the common beverage pure ater. The instructions given for the treatment of indigestion ually apply to the prevention of gout.

In the 89th number of the Monthly Gazette of Health, the ılphuret (not sulphate) of soda, in the dose of ten grains ıce a day, dissolved in a wine-glassful of water, is highly ;commended by an Italian physician, as a preventive of gout, r, rather, as a powerful corrector of the gouty habit. The ıme gentleman speaks highly of the beneficial effect of oiled lk worn over fine worsted stockings.

As there is a disposition in gout to return in spring and aumn, greater attention to an abstemious diet at those periods ill be particularly necessary. The composition termed the helsea Pensioner's Specific, the basis of which is sulphur, is an ccellent preventive remedy. An improvement in the form is iven in the 49th and 50th numbers of the Gazette of Health; ıd the original receipt is published in the first volume of that ork. The Aperient Pills recommended p. 89, and the Soluon of Prepared Natron, or Carbonate of Soda, or the Sulphuret f Soda, the Tincture of Ginger and Camolile, and Sassafras lut (see p. 157), should also be resorted to on any symptoms enoting the approach of a paroxysm, by which means the reırrence of the disease may be generally prevented. The feet ıould always be kept dry and warm by means of flannel, r horse-hair socks; flannel next the skin will likewise be roper. The warm vapour bath, used whenever the skin beomes dry or the body feverish, or when pains occur in any part f the body, is a most valuable preventive of gout. — (*See* WARM 'APOUR BATH, p. 227.)

OF ATONIC GOUT. — The cure of this species of gout consists ı improving the general health of the patient: for this purpose, ıe Stomachic Mixture, p. 114, should be taken, with four grains f the blue pill, every night for a week. If the patient be of a ervous temperament, the Nervous Mixture (C), p. 113, should be ubstituted for the Stomachic Mixture. In case of nausea at ıe stomach, an emetic of Ipecacuan Powder, No. 23, and a ose of equal parts of Tincture of Senna, No. 8, and Tincture f Rhubarb, No. 4, should precede the use of these medicines.

A generous diet and moderate exercise are indispensably requisite. The feet should be kept warm by the use of flannel socks and cork-soled shoes, and the nerves of the lower extremities invigorated, by the application of the Euphorbium plaster to the loins.

Of Retrocedent Gout.—When gout affects the stomach and intestines, relief is to be attempted without delay, by the free exhibition of warm brandy and water, with a little ginger powder; and if they do not prove sufficiently potent, ardent spirit must be employed. A dessert-spoonful of ether has, in this case, answered very well, to which half an ounce of paregoric elixir will prove an useful addition. The bowels should be fomented, and the feet put in warm water, and afterwards rubbed with the flower of mustard-seed. When gout attacks the head, the same means are to be pursued, with the addition of a large blister to the scalp. A strong mustard poultice to the feet may likewise be applied after the warm water. When it affects the lungs, half an ounce of the paregoric elixir, with a tea-spoonful of ether and sal volatile, should be given occasionally; a blister applied over the breast-bone, and a mustard poultice to the feet.

Of Misplaced Gout.—When, instead of the usual determination to the extremities, the inflammation takes place in the lungs, or any internal part, it often requires to be treated as a *primary inflammatory* affection, by blood-letting, application of blisters over the part and to the extremities, and the use of the aperient and sudorific medicines. But these cases are always so much involved in ambiguity as to render them very improper for domestic medicine: they often perplex even practitioners of experience; and I have no doubt, but by the injudicious exhibition of cordials in one case, and bleeding in another, many lives have been destroyed. Little, therefore, should be done (unless in cases of great emergency, where medical assistance cannot be speedily obtained) without the sanction of a practitioner of experience and judgment. If, however, the life of the patient be in imminent danger, and no experienced practitioner be at hand, a tea-spoonful of spirit of sal volatile and two of ether may be given in cold water, and the stimulating Mustard Poultice, p. 122, applied over the stomach, and to the feet. When the patient is of a leucophlegmatic habit, abstraction of blood is a bold practice, even when gouty inflammation attacks an internal organ.—(*See* Evacuants, p. 32.)

Practical Remarks.—By the foregoing account of gout, it appears that the paroxysm is an operation of nature to restore the nervous system, impaired by abuse of spirits, stimulating diet, and excesses, to vigour and health; and, therefore, topical appli-

cations to disperse the inflammation, and remedies to weaken the system, are dangerous. That in the treatment, we must principally attend to the state of the stomach and bowels, by a mild stomachic medicine, and the occasional use of an aperient. That a stimulating liniment or blister, by assisting nature, is often very beneficial. That perspiration should not be checked. That laudanum may be administered to procure rest, in case of violent pain, but that its effects on the constitution tend to keep up the gouty irritation. That the debility of nerves being the consequence of over-stimulation by spirituous liquors, spices, or high-seasoned dishes and excesses, the best preventive treatment is, to attend to the state of the digestive organs, as recommended for indigestion. That the treatment of regular and the other varieties of gout must be regulated according to the temperament, habits, age, and general health; and that a treatment even of regular gout in a sanguineous temperament might prove very injurious in a leucophlegmatic one.

OF THE GRAVEL AND STONE.—The gravel consists in small sand-like concretions, formed in the kidneys, and evacuated with the urine. In passing through the tubes (termed ureters) from the kidneys to the bladder, they often occasion a degree of pain, more or less acute, according to their size and form. When a piece lodges in the bladder, it gradually enlarges, and forms what is termed the *Stone*, which, when of a smooth surface, often produces little or no irritation till, from its weight and size, it produces mechanical inconvenience, such as frequent inclination to evacuate the bladder, numbness in the thighs, and spasms in the calves of the legs, in consequence of compressing the nerves leading to those parts. When the surface of the stone is hagged, or its form angular, it often excites considerable irritation and mischief in the bladder, occasioning slimy discharge with the urine, and not unfrequently a quantity of blood, a constant inclination to make water and to go to stool, attended with straining, and often very acute pain. Men are more subject to stone than women, in consequence of the urethra of the latter more readily admitting of the escape of calculous concretions than that of the former.

CAUSE.—Hippocrates was the first who observed that these concretions are occasioned by the use of hard water; and this opinion has been very generally adopted. Dr. Lister has confirmed it by an observation, that the inhabitants of Paris, who use much *hard* water in their aliment and beverage, are peculiarly subject to this disease; and Dr. Perceval asserts, that a gentleman and lady in Manchester, who had suffered much from gravel, were greatly benefited by discontinuing the use of their pump-water, which was unusually *hard*, and drinking

in its stead the *soft* water of a neighbouring spring. So beneficial was this change to the lady, that she did not experience the least symptom of the disorder for two years.

Many practitioners, from an analysis of the stone, have attributed its formation to the use of *acids:* were this, however, really the case, the disease would be prevalent in those countries where an acid beverage is principally drank. Cider, the common beverage in Herefordshire*, contains both the malic and the acetic acid, and yet in no county in England are calculous complaints more rare. Some authors attribute the disease to impaired digestion: to which may be added a disordered state of the secretory vessels of the kidneys, producing new combinations, the effect of which is the production of calculous matter.

TREATMENT.—When the gravel or a small stone is passing from the kidneys to the bladder, it often produces considerable pain, frequently attended with nausea or vomiting, which constitute what is termed a fit of the gravel. During this period the principal object of practice is to relax the parts, and thereby obviate inflammation, by abstracting blood from a vein, particularly if the patient be of a plethoric habit; the bowels should be emptied by the Purgative Mixture (B), p. 113, and a lavement of gruel; and as the latter will not only assist the operation of the castor oil, but act as a fomentation to the parts affected, it should be administered twice a day.

The warm bath, by relaxing the system, will prove a great auxiliary to these means. After the operation of the purgative mixture, from ten to twenty drops of laudanum may be given, according to the severity of the pain, and the Narcotic Clyster, p. 104.

The diet during the fit should be low, and the beverage the almond emulsion, barley-water, decoction of marshmallow root, or linseed tea.

When the calculus has passed into the bladder, which is known by the cessation of the spasms, the Antilithic Pills, p. 117, should be taken, with the Decoction of Marshmallow Root, p. 138. Dr. Falconer, of Bath, has published several cases in which soda water proved very beneficial; and, in my own practice, I have found it to succeed better than any other diuretic medicine. The carbonate of soda is also a very excellent remedy, and probably more powerful than the aerated soda-water. An infusion of the buchu leaves has proved useful in cases of stone and gravel, particularly when attended with great pain, and coffee-

* It is a remarkable fact, that a case of stone has not occurred at the General Infirmary of this county since its establishment, being a period of about fifty years.

coloured or bloody urine. — (*See* BUCHU LEAVES, page 148.) Spirit of turpentine, balsam of copaivi, sweet spirit of nitre, and soap lees, have occasionally afforded great relief.

Distilled water has proved in many instances so very beneficial in gravelly complaints, that I am inclined to believe, if a person were to make use of no other beverage, and employ it in every article of diet, he would continue free from it.

In cases of *red* gravel, magnesia in the quantity of a tea-spoonful two or three times a day, in an infusion of the buchu leaves, is an excellent remedy; but when the gravel is *white*, two or three tea-spoonsful of lemon-juice, or ten to fifteen grains of tartaric acid in the Infusion of Buchu Leaves, page 134, will answer best. Magnesia and lemon-juice have been lately much recommended for the red and white gravel by Professor Brande, of London.—(*See* ANTACIDS, p. 6, and ANTALCALINES, p. 7.)

When the complaint has existed many years, the structure of the kidneys often becomes diseased, which renders the malady more obstinate. In this case the Euphorbium plaster should be applied over the loins, and a little mercury taken as directed for indigestion.

If the stomach be much disordered, and the patient be of a gouty habit, the Stomachic Mixture (A), p. 114, may be taken with fifteen or twenty drops of the Ammoniated Tincture of the Colchicum Seeds, page 149, in each dose.

Practical Remarks. — By the foregoing account of gravel and stone, it will appear that the best preventive is the adoption of soft or distilled water as a beverage. That the most efficacious remedy, when the gravel is red, is magnesia with the infusion of the buchu leaves or decoction of marshmallow root, and, when *white*, lemon juice, or the tartaric acid with the buchu leaves. That when diseased structure has taken place in the kidneys, a little mercury and the Euphorbium plaster over the region of the kidneys will also be necessary. That during a fit of the gravel, bleeding in a full habit, purgative medicines, the exhibition of an anodyne clyster, the warm bath once or twice a day, and laudanum occasionally, are proper. That in debilitated constitutions, the infusion of buchu leaves generally proves beneficial.

OF GUTTA SERENA. — Gutta serena is a species of blindness, without any apparent disease or fault in the eye, except a dilatation of the pupil. When there is a *total* loss of vision, the disease is said to be *perfect*; and *imperfect*, when there is a power of distinguishing light from darkness.

CAUSES. — This disease consists in a paralytic affection of the optic nerve, in consequence either of compression, debility, or poison.

TREATMENT. — Although three causes are enumerated as producing this disease, the mode of treatment to be pursued for the recovery of the optic nerve is the same. A seton or a perpetual blister to the nape of the neck should be employed, and the discharge kept up for at least two or three months, unless contra-indicated by *increasing* debility of the system. As an internal remedy, mercury, in alterative doses, is the most efficacious; and as its good effects depend more on its removing obstruction than on stimulating the nerve, it should be continued till the constitution be sufficiently under its influence (known by a slight swelling of the gums and an increased secretion of saliva), as there are many instances on record that have been cured by salivation after other medicines had failed. The oxy-muriate of mercury is generally recommended; but calomel will certainly have as good an effect, and, on account of being much milder, is, in domestic practice, entitled to the preference. Calomel may be administered by making half a drachm into twenty pills with a little conserve of hips; one of which may be taken every forenoon and at bed-time, till the gums become swelled and tender, when they should be discontinued for a week. — (*See* ALTERATIVES, p. 3.) It will likewise be proper to snuff up the nostrils a little of the asarabacca snuff, as directed page 153.

As a stimulating application to the balls of the eyes, an infusion of Cayenne pepper (made by steeping eight grains of the pepper pods, bruised, in half a pint of cold distilled water in a close vessel for three hours, when it should be filtered through paper for use,) has been employed with success. Two or three drops of this infusion are to be conveyed between the eye-lids twice a day, for a considerable time. This application has been used with success at the Liverpool Infirmary. The pain it excites is, however, often so acute, as to require great fortitude in the patient to bear it for a sufficient length of time. When the patient will not submit to it, the electric fluid in sparks, applied to the eyes twice a day, for six or eight minutes, will often answer as well, and perhaps in most instances better. — (*See* ELECTRICITY, page 169.) — If an evident distention of the vessels of the head exist, the loss of blood from the temple, either by opening the temporal artery, or by leeches, or from the nape of the neck by cupping, will be necessary. If accompanied with general plethora, twelve ounces of blood should be taken from the arm; and in case of suppression or retention of the menstrual evacuation, the loss of blood will be proper, either local or general, according to the state of the system. In this latter case, the remedies recommended for the retention of the menses should be employed. — (*See* MENSTRUATION.)

Rubbing the affected eye, and gently beating it with a small wooden hammer for five or ten minutes, two or three times a day, has been found very beneficial in this species of blindness.

OF HEAD-ACHE. — Few complaints are more prevalent in this country than head-ache. It is rarely a *primary* affection. The most common causes are general or local plethora, in consequence of suppression of customary evacuation, and obstructed perspiration. When such head-ache occurs in a person disposed to apoplexy, and attended with giddiness, pulsating sensation in the head, and noise in the ears, it should be considered a *premonitory* symptom of apoplexy, and the preventive means recommended for that disease, should be employed without delay.

Head-ache is frequently of a *rheumatic* nature, when the membrane covering and lining the skull is principally affected. In this case the patient experiences a slight pain on pressing the scalp. This species of head-ache often alternates with pain in the shoulder, or some other parts of the body.

Head-ache is very often the consequence both of an *increased* and *diminished* irritation of the brain, when it is termed *Nervous Head-ache.* This species is generally produced by close application of the mind, particularly on abstruse subjects. In consequence of the great sympathy that exists between the womb and brain, females are very subject to this complaint. With them it is often periodical, and sometimes very regular in its diurnal attacks. This species is a common attendant on general debility, and is frequently produced by great evacuations, as loss of blood, frequent suckling, &c. — (*See* NERVOUS DISEASES.)

Head-ache is frequently symptomatic of indigestion; for so great is the sympathy between the brain and stomach, that it is often difficult to determine which is primarily affected. People who are subject to preternatural determination of blood to the brain are always more or less affected with indigestion, nausea, &c. in consequence of the slight compression of the brain from distention of blood-vessels. When it arises from a foul state of the stomach, it is generally termed Sick Head-ache, and is speedily relieved by vomiting. Nervous head-ache is also often connected with flatulence in the intestines. Why this air should produce head-ache is difficult to say; but certain it is, that the most obstinate nervous head-aches often cease on its being freely expelled. Those who have had opportunities of observing the morbid appearances of the brain, so commonly exhibited on dissection, cannot be surprised at the frequency or the obstinacy of head-ache; but, on the contrary, from the diseases that are so often found in its membranes, or substance, must wonder that the sufferings of the patients are not much

greater. A deposition of earthy matter in the coats of arteries is often the cause of head-ache; and I believe the blood-vessels and the membranes are more frequently the seat of pain than the brain itself. The blood-vessels are not only subject to chronic inflammation, of which the deposition of earthy matter is the effect, but also to ulceration, which, by destroying the coats of the vessels, occasion fatal apoplexy: hence apoplexy is not always the consequence of over-distention of the vessels.

TREATMENT. — In cases of head-ache, it is of great importance to ascertain the state of the vessels of the brain, as to plenitude or depletion, and whether the complaint be primary or sympathetic. If the subject be young or of a sanguineous habit, and local congestion clearly exist, the loss of blood will be proper, either by leeches or cupping; which, with the use of the Aperient Pills, p. 89, and a spare diet and exercise, will generally effect a cure. If it resist these remedies, a blister should be applied to the nape of the neck, and the feet immersed for ten or fifteen minutes in warm water, and afterwards kept warm by flannel socks. Ether may likewise be applied to the temples and forehead, and cold water to the head. People subject to this species of head-ache, will receive great benefit from the application of *cold* water to the head every morning, and by keeping the feet warm with flannel socks. The means recommended for the prevention of apoplexy, are applicable to this species of head-ache. — (*See* APOPLEXY.) — If the patient be advanced in life, or if he be of a leucophlegmatic habit, the treatment recommended for venous plethora, under the head of Apoplexy, will be proper. — (*See* EVACUANTS, page 32.)

For the *rheumatic head-ache*, which generally occurs on certain changes in the atmosphere, and particularly during the prevalence of the north-east wind, the Antirheumatic Mixture (B), page 110, warm fomentations, the Aperient Pill, page 89, small doses of the antimonial powder, every night at bed-time; the asarabacca snuff, as directed page 153, and the warm-bath, are the most powerful remedies. If it be attended with general plenitude, the loss of blood by leeches or cupping, and a blister to the nape of the neck, will also be proper. The Sulphureous Purgative Salt, p. 152, has in many instances entirely cured this species of head-ache, after more active medicines had failed. A flannel cap should be worn during the night. — (*See* RHEUMATISM.)

For the cure of the sub-irritative *head-ache*, or head-ache arising from relaxation or debility *, whatever is likely to dis-

* It is sometimes difficult to determine, whether head-ache be super-irritative or sub-irritative. If it be attended with redness of the eyes, giddiness, pulsation, and an aggravation of pain on sneezing or stooping, there can be no

turb the mind should be avoided. If the digestive organs be affected, an emetic should precede the exhibition of other medicines; after the due operation of which, the Nervous Mixture (C), p. 113, may be taken.

If the patient be subject to costiveness, one or two of the Aperient Pills, page 117, may be taken every or every other night, so as to keep the bowels in a regular state; and if acidity predominates in the stomach, two drachms of the prepared natron may be added to the nervous mixture. I have had repeated opportunities of giving this medicine a trial in very obstinate cases of nervous head-ache, and in no one instance has it failed to produce the desired effect.

Ether may likewise be applied over the part of the head most affected. The asarabacca snuff, by exciting sneezing, and producing a discharge from the inner membrane of the nostrils, often affords speedy relief.

If the patient be subject to flatulency, a little ginger powder may be taken in the common beverage.

When head-ache arises from indigestion, which is a very common cause of complaints of the head, the directions for the treatment of indigestion will succeed in curing it. — (*See* INDIGESTION.)

Electricity has been much recommended as a remedy for head-ache, and the application of the electric aura to the head has often given relief: it, however, frequently recurs with increased violence after its use; and when the disorder has arisen from fulness of blood-vessels, it has so increased the determination of blood to the head as to produce apoplexy. — (*See* ELECTRICITY, page 169, and GALVANISM, page 170.)

The application of ether to the temples, washing the head with cold water, the asarabacca snuff, a blister to the nape of the neck, keeping the feet warm by wearing flannel socks, attention to the state of the digestive organs, and avoiding full meals, and spirituous or vinous liquors, with moderate exercise, will, generally speaking, prove highly beneficial in mitigating, if not effectually curing, habitual or chronic head-ache, from whatever cause it may arise. In chronic or periodical head-ache, it is likewise of consequence to attend to the secretions of the head, particularly of the ears and nostrils: the former may be increased by introducing a little lamb's wool moistened with camphorated oil, and the latter by the asarabacca snuff. Simple as the two last remedies may appear to be, I have found them powerful auxiliaries to the constitutional treatment.

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doubt but that it is of the former kind; but if the eyes be pale, and the patient experience relief on sneezing or stooping, it may be considered of the latter kind, or what is generally termed *nervous*.

Practical Remarks. — Head-ache arises from opposite causes, *viz.* fulness and depletion of the blood-vessels of the head; rheumatism or morbid irritation of the external covering of the skull-bone, and disordered state of parts with which the brain particularly sympathises, as the stomach and womb. When fulness of blood-vessels, either local or general, prevails in a young subject or in a plethoric habit, the loss of blood is necessary, and an aperient medicine. If the congestion be local, the feet should be kept warm. The means recommended for the prevention of apoplexy are applicable to this species of head-ache. When, on the contrary, the system is in a relaxed or debilitated state, tonic medicines and the asarabacca snuff are necessary. When the complaint is principally external, the remedies recommended for rheumatism should be employed with the asarabacca snuff, and a flannel cap worn during the night, and the scalp rubbed every night and morning with the Cajeput liniment: when it arises from irritation in the womb, or a disordered state of the stomach, the treatment recommended for hysterics should be adopted in the former case, and that for indigestion in the latter. When the complaint arises from languid circulation, and the venous system is overloaded, abstraction of blood, with a tonic medicine, will be proper, as (A), p. 115; and when the system is leucophlegmatic, the Tonic Mixture with steel, as (B), p. 115.

OF HEARTBURN. — This affection consists in an acute burning sensation in the stomach, sometimes attended with great anxiety, difficulty of breathing, acid eructations, flatulence, inquietude, and nausea.

Causes. — This complaint may be attributed to increased excitement or sensibility of the stomach, from the abuse of stimulating liquors or gluttony, the consequence of which is, the vegetable food runs rapidly into the acetous fermentation, and if the food be mixed with malt liquor, wine, or sugar, an acid will be produced, capable of exciting a burning sensation in the stomach, and of irritating the gullet and palate on being vomited, whilst the fat part of meat will become extremely acrid. Sometimes the increased excitement is attendant on organic disease of the stomach.

Treatment. — Immediate relief generally follows the exhibition of an alcaline medicine, in consequence of its neutralising the acid; as magnesia, salt of wormwood, soda, or lime-water. When the bowels are confined, either of the three first articles may be taken as directed under their respective heads; but when the bowels are much relaxed, which is often the case when organic disease exists in the stomach or intestines, lime-water should be preferred. As the stomach is always more or less in fault, the

Stomachic Mixture (B), p. 114, should likewise be taken; or, if the patient be of a nervous habit, the Stomachic Mixture (C), in the same column.

If the patient have an aversion to medicine in a liquid form, the following pills may be substituted for the above mixture: —

Take of Extract of Camomile Flowers,	.	1 drachm.
Dried Sub-carbonate of Soda,	-	1 scruple.
Powdered Rhubarb,	- -	1 scruple.
Oil of Caraway Seeds,	- -	8 drops.

Mix well together, and divide into twenty-four pills, two or three of which are to be taken twice a day.

A draught of water generally affords relief, by diluting the acidity in the stomach. The dilute vitriolic acid, taken as directed, p. 68, will often succeed in curing heartburn, after the absorbent and alcaline remedies have failed to remove it entirely, by preventing fermentation. — (*See* ANTACIDS, p. 6.) — The same rules as to diet and exercise should be observed, as recommended for indigestion.

If the pain should recur, notwithstanding the use of these remedies and proper attention to diet, and the patient be advanced in years, thickening of the coats of the stomach may be suspected, when one of the following pills should be taken every night for a week, and resumed after an interval of ten days: —

Take of Blue Pill,	- - -	28 grains.
Extract of Hemlock,	- -	1 scruple.

Mix well together, and divide into seven pills.

Two tea-spoonsful of the alcaline tincture of fumitory may be taken three times a day in a wine-glassful of the decoction of the marshmallow root.

An irritant, as the Euphorbium plaster, should be applied over the region of the stomach. — (*See* DERIVATIVES, p. 23.) — When a deficiency of mucus is the cause, animal jelly, and the decoction of Iceland moss, or of the quince seed, p. 133, will be proper; and when it occurs in a gouty habit, two tea-spoonsful of the alcaline tincture of fumitory in a wine-glassful of lime-water, every three or four hours, will generally afford relief. — (*See* PREVENTION OF GOUT.)

When heartburn is an attendant on pregnancy, the solution of Epsom salt, with the use of the dilute vitriolic acid, as directed page 58, frequently succeeds; but such cases often require a variety of treatment, according to the relaxed or costive state of the bowels, debility, or plethora.

For directions with regard to diet, prevention, &c. &c., *see* TREATMENT OF INDIGESTION.

Practical Remarks. — The production of acidity in the stomach, which occasions the pain termed heartburn, being the consequence of imperfect digestion, from increased excitement or sensibility of its nerves, we should employ alcaline medicines to neutralise the acid, with a mild stomachic bitter. If organic disease of the stomach exist, which, in elderly people, is often the case (symptoms of which are vomiting of slime, and cramp in the stomach), mercury (the blue pill) is necessary, with the Euphorbium plaster over the region of the stomach. The treatment recommended for indigestion from morbid excitement, or feverish condition of the stomach, is applicable to this disease.

OF HECTIC FEVER. — This fever appears to be produced by pus conveyed to the mass of blood by the absorbent vessels; hence it is an attendant on ulcerations of the lungs, internal suppurations, the formation of matter in a joint, or in a viscus, and sometimes large abscesses on the surface of the body, and chronic inflammation of the membrane lining the windpipe, bladder, &c. When the symptoms run high, it often resembles an intermittent fever, and, by unskilful practitioners, is not unfrequently mistaken for it. The fever returns every day, with noon and evening accessions. In the morning there is a considerable *remission*, but very rarely a *complete intermission*. It is for the most part attended with profuse nocturnal perspiration, and the urine, on standing, deposits a considerable sediment. — (*See* CONSUMPTION.)

OF HICCUP, OR HICCOUGH. — Hiccup is a spasmodic affection of the midriff, and generally arises from irritation produced by acidity in the stomach, error of diet, poison, &c.

CURE. — When acidity is the cause, twenty-five drops of Sal Volatile, No. 13, with a tea-spoonful of Magnesia, No. 1, in a glass of pure water, will afford relief; and its recurrence may be prevented by the use of the Stomachic Mixture (B), p. 114. When it is the consequence of improper food, an emetic will be necessary; and, when produced by poison, the means recommended for counteracting the effects of poison should be immediately resorted to.

If it should continue obstinate, or amount to spasms, a tea-spoonful of ether, with eight drops of laudanum, in a glass of cold water, will prove the best remedy. A warm bottle may likewise be applied to the pit of the stomach, and the feet immersed in warm water.

This affection is often cured by whatever *suddenly* arrests the attention, whether the passion connected therewith be of the stimulating or debilitating kind.

In children, hiccup is often produced by the irritation of acid matter in the stomach, in consequence of being over-fed; in

which case magnesia and rhubarb, in a little mint-water, afford the best remedy; but when it occurs in bowel complaints of long standing, the compound cretaceous powder will prove more beneficial. People subject to hiccup should particularly attend to the directions given for the prevention of indigestion.—(*See* INDIGESTION.)

OF THE HOOPING OR CHIN COUGH. — This disorder is no doubt contagious; and, the system once infected being secure from future attacks, children are generally the subjects of it.

SYMPTOMS. — It commences with the symptoms of common cough, which gradually become more violent till it is evidently convulsive, the patient, at times, not being able, for a considerable interval, to inspire; and when inspiration is effected, it is attended with a shrill kind of noise, like the crowing of a cock. These fits, for the most part, occasion so great a determination of blood to the head, that a small vessel of the membrane lining the nostrils often gives way. The eyelids and eyes appear much swelled, and the irritation extending to the stomach, the paroxysm often terminates in vomiting. It is seldom attended with continued fever.

CAUSE. — It is produced by the action of a contagious effluvium, which, in the first instance, excites irritation in the membranous lining of the windpipe and its branches, and afterwards extends to the midriff, and the muscles of the chest engaged in respiration. The seat of the morbid irritation is the same as that of asthma.

TREATMENT. — The mode of treatment must be regulated by the state of the constitution; for the weakly and robust are equally liable to receive the infection. If the general health of the patient be good, and particularly if the system be plethoric, the extraction of blood by leeches or cupping will be necessary, to prevent the violence of the cough doing mischief to the brain or lungs. The cure may then be attempted, first by an emetic of the Tartarised Antimony Wine, No. 16, and afterwards the Antipertussic Mixture, p. 110. The Euphorbium plaster should be applied over the pit of the stomach; or, if attended with pain in the chest, a blister over the breast-bone, or between the shoulders, will be necessary. In the early stage of the complaint, these remedies will generally prove sufficient to effect a cure; but if by neglect the disease be once established, it will often run its course in defiance of the most powerful antispasmodic medicines.

This disorder may often be effectually cured by putting the system under the temporary influence of a vegetable poison; for this purpose, the extracts of hemlock, the henbane, and deadly

nightshade, have been employed by different practitioners, and each has its advocates. As children are differently affected by these medicines, it is impossible to give a general form for their exhibition; for, unless a certain effect be produced to counteract the action of the contagion, it will prove of no avail. The hemlock is much recommended by some writers who prefer the extract; but the powdered fresh leaves is unquestionably the best preparation, and the only one to be relied on. Some physicians prescribe it with other medicines, as syrup of poppies, ipecacuan, and oxymel of squills; but as they may destroy its peculiar properties, it should be given only in a very simple vehicle. The dose of this powder is from one to two grains two or three times a day.

An emetic should always precede the use of this medicine; and if acidity prevail in the stomach, the occasional exhibition of magnesia, or carbonate of soda, will also be necessary; to which a little rhubarb powder may be added in case of costiveness. The extract of tobacco, in the dose of one grain, dissolved in a little simple water, is a very favourite remedy for hooping-cough with many physicians in Germany. It is a more potent remedy than hemlock, henbane, or the deadly nightshade, and probably not more efficacious. The application of leeches and a blister over the breast-bone, or between the shoulders, is more particularly necessary if the child be born of consumptive or scrofulous parents, as in such subjects the cough is most likely to prove obstinate, or to produce some serious mischief.

The warm vapour bath (with the head introduced so as to breathe the warm vapour) is a powerful auxiliary to internal medicine.

When the disease continues from habit, and the system has been much reduced by it, bleeding and blistering are improper: in such case, the rhatany root, or bark, combined with soda, will prove very beneficial, as the following:

Take of Decoction of Rhatany Root, or of Peruvian Bark,	6 ounces.
Carbonate of Soda, - - -	2 drachms.
Tincture of Cardamom Seeds, - -	½ ounce.

Mix. — From one to two table-spoonsful to be taken three times a day.

When the disease has induced considerable degree of debility, a change of air is generally very beneficial, and also cold bathing. It requires, however, much judgment to determine when tonic medicines are proper; for although the patient may be much reduced, there may be a preternatural distention of the vessels of the lungs or brain, or disposition to inflammation, in which cases any strengthening medicine would assuredly prove very injurious.

Dr. Hugh Smith, after observing that emetics occasionally repeated are of great service, and blisters when the symptoms are urgent, directs the following: —

Take of Musk Julep, - - 6 ounces.
Paregoric Elixir, - - ½ ounce.
Volatile Tincture of Valerian, - 1 drachm.
From one to three table-spoonsful to be taken every three or four hours.

The tincture of artificial musk has been lately much recommended as a specific for hooping-cough. It is given in the dose of ten to twenty drops, in a little barley-water, two or three times a day.

The acetate of ceruse I have found very efficacious after the disease has existed a fortnight. The following is the best form for administering it: —

Take of Acetate of Ceruse, - - 6 grains.
Syrup of Poppies, - - 2 drachms.
Dill-water, - - - 2 ounces.
Mix. — Two tea-spoonsful to be given to a child of two years to ten, and a dessert-spoonful to an adult, every five hours.

This mixture generally succeeds in subduing the violence of the disease in three days, when the cure may be completed by ipecacuan wine, in the dose of eight to twenty drops two or three times a day in a little barley-water.

The tincture of colchicum seeds, in the dose of ten to fifteen drops, three times a day, has lately been much recommended as a remedy for hooping-cough; and, from its power of allaying nervous irritation, it is worth a trial.

Since the publication of the last edition of this work, the Prussic acid, in the dose of one drop, twice or thrice a day, in almond emulsion, has been much extolled as a specific remedy for hooping-cough; and in many cases I have found it to terminate the disease in a few days. Being a powerful poison, its effects should be carefully watched.

The diet should be adapted to the strength and age of the patient. In general, equal parts of barley-water and fresh milk will be sufficient for an infant.

When the attempts to force a child to swallow medicine irritate the mind and bring on a paroxysm of coughing, the Antispasmodic Clyster, p. 106, may be exhibited twice a day, and the solution of acetate of morphine with antimonial wine, having little taste, a few drops of each may be added to an article of diet, as tea, milk, &c. three times a day.

When the disease resists the foregoing remedies, the Basilic Powder, as directed, p. 85, will prove very beneficial, especially

if the patient be affected with worms.* When the cough has become of a chronic nature, it may often, if not always, be cured by keeping up a healthy digestion, and by adopting a regimen that is not likely to disorder the stomach. — (*See* INDIGESTION.)

When this disease proves fatal, it is either by producing convulsions or inflammation of the lungs or brain; and in scrofulous habits, consumption of the lungs, or disease in the mesenteric glands, the prevention of which should be a principal object of practice.

Practical Remarks. — The violent action of the diaphragm which gives this disease its character, is occasioned by a peculiar contagion. The object of practice is, first, to produce a state of system in which its violence may not do mischief, by bleeding and purging; after which, the counter-irritation of a blister, and an anodyne medicine, as the hemlock, or acetate of ceruse, are most likely to effect a cure. If the disease has continued so long as considerably to reduce the strength of the patient, the treatment recommended for indigestion and change of air will prove more beneficial than anodynes. On infants, after unloading the system, an emetic of ipecacuan powder once a day, has a very salutary effect by removing slime and promoting expectoration.

OF HYPOCHONDRIACISM. — This disease, commonly called vapours, or low spirits, is evidently dependant on a disordered condition of the brain, in consequence of which the whole nervous system is more or less disturbed, and the intellectual functions imperfectly performed. It is distinguished by a concurrence of the following circumstances: A languor, listlessness, or want of resolution and activity, with respect to all undertakings; a disposition to seriousness, sadness, and timidity, as to all future events; an apprehension of the worst or most unhappy state of them, and therefore often, on slight grounds, a dread of great evil. Such persons are particularly attentive to the state of their own health, and to the smallest change of feeling in their bodies: from any unusual sensation, perhaps of the slightest kind, they apprehend great danger, and even death itself; and, in respect to all these feelings and apprehensions, there is, for the most part, unfortunately, the most obstinate belief and persuasion. It is generally attended with symptoms of indigestion, but not always; and sometimes with melancholy.

This turn of mind appears in youth at the period when the sympathy between the brain and genitals is about to be esta-

* The existence of worms in the stomach is often a cause of the *obstinacy* of this disease. I have known several instances of its ceasing soon after an evacuation of worms.

blished, as well as in advanced age; and when it has once taken place, it generally goes on increasing.

TREATMENT. — No disorder admits of greater scope for the management of the passions than hypochondriacism, which manifests itself in its effects on the mind and spirits. Greater delicacy, however, is here requisite than is generally allowed by practitioners. It is the practice of hypochondriacal patients often to change their medical attendants, which is certainly not altogether inconsistent: for if the physician do not admit the *reality* of the disease, it is not to be supposed that he will take much pains in curing it, or to avert a danger of which he entertains no apprehension. The sufferers are mostly of a gloomy disposition, and subject to great despondency of mind, concerning their own situation in point of relief, and want cordials and exhilarating remedies to the mind as well as the body. To treat such disorders as merely imaginary, generally irritates choler, and impresses a belief, that their friends have but little concern for their safety and welfare; and, on the other hand, to coincide in opinion concerning the melancholy situation of such persons, depresses the spirits, and tends above all things to aggravate the complaint. The most judicious course is to endeavour to excite the fortitude of the sufferers, by representing to them, it is unworthy a brave and resolute character to be always complaining of misfortunes which are the common lot of mankind; that it is more manly to struggle with ill fortune, than to sink without resistance beneath its pressure. We should also endeavour to abstract the mind as much as possible from reflecting on their own situation and condition of health.

The firm persuasion that generally prevails in such patients, does not allow their feelings to be treated as imaginary, nor their apprehensions of danger to be considered as groundless, though we may be persuaded it is the case in both respects. Such patients are not to be treated either by raillery or reasoning. Dr. Alexander observes, the best way is to keep the mind closely engaged in some useful or agreeable pursuits; hence we learn the superior advantage of those situations in life, which more immediately call for intellectual exertions and bodily exercises. "Industry seldom fails to place us above want, and activity serves us instead of physic." In fact, none are so wretched as those who have nothing to do; they are useless to others, and a burden to themselves.* Constantly impressed with the apprehension of some imaginary evil, they either become the victims of despondency, or the dupes of ignorant and unprincipled pre-

* "Absence of occupation is not rest;—
A mind quite vacant, is a mind distrest!"

tenders to physic, whose sole aim is to enrich themselves at the expense of the follies or conceits of mankind.*

It being the nature of man to indulge every present emotion, so does the hypochondriac cherish his fears, and, attentive to every feeling, finds, in "trifles light as air," a strong confirmation of his apprehensions; his cure, therefore, depends upon the interruption of his attention, by diverting it to other objects than his own feelings. Whatever aversion from application of any kind may appear, there is certainly nothing more pernicious to the hypochondriac than absolute idleness, or a vacancy from all earnest pursuits. It is owing to wealth admitting of indolence, and leading to the pursuit of transitory and unsatisfying amusements, or to that of exhausting pleasures only, that the present times exhibit to us so many melancholy instances of this depraved state of imagination. The mind should not only be diverted from the bodily affection, by employments suitable to the circumstances and situation in life, and unattended with much emotion, anxiety, or fatigue; but also by various kinds of sport and hunting, which, when pursued with some ardour, and attended with exercise, if not too violent, are among the most useful. Within doors, company which engages attention, willingly yielded to, and at the same time of a cheerful kind, will be always found of great service. Play, in which some skill is required, and where the stake is not an object of anxiety, if not too long protracted, may often be admitted. Music, to a nice ear, is a hazardous amusement, as long attention to it is very fatiguing.

When amusements of every kind are rejected, mechanical means of interrupting thought should be employed. Walking is seldom of this kind; though, as gratifying to the restlessness of hypochondriacs, it has sometimes been found useful. Riding on horseback, or in a carriage of any kind, or sailing in an open boat, on account of engaging the mind, is generally beneficial; but the exercise that proves most effectual, is that which is employed in the pursuit of a journey; first, because it withdraws a person from many objects of uneasiness and care, which might present themselves at home; secondly, as it engages the person in more constant exercise, and in a greater degree than is commonly taken in an airing near home; and, lastly, as it is constantly presenting new objects which call forth the person's attention.

The symptoms of indigestion and hysteric complaints that so frequently attend this condition of the brain, although the effect,

* If in any case the fraud of what is termed a *placebo* be allowable, it seems to be in treating hypochondriacs, who, anxious for relief, are fond of medicine, and, though often disappointed, will still take every new nostrum that can be proposed to them.

rather than the cause, are objects of practice, inasmuch as they tend to aggravate and realise the false apprehensions of the patient. These secondary affections require the same mode of treatment as recommended for indigestion and the hysteric disease. Warm bathing, and warm tea and coffee, which are hurtful to people with bad digestion, generally afford relief to the hypochondriac.

Mr. Abernethy, like the ancient physicians, refers the cause of this disease to an indolent state of the chylopoietic viscera, particularly of the liver, and recommends it to be treated in the same manner as indigestion.

Some practitioners speak in high terms of commendation of the extract of black hellebore root as a *visceral* purgative; and I have certainly met with cases in which it, in combination with the extract of rhubarb and aloes, has proved beneficial, as the following composition: —

Take of Extract of Black Hellebore,
Extract of Rhubarb,
Socotrine Aloes,
Castile Soap, of each, - ½ drachm.
Mix, and divide into twenty-four pills: three to be taken once or twice a week.

The Nervous Mixture (C) or (B), p. 113, should be taken as there directed.

The rules for the diet of people affected with indigestion should be observed by hypochondriacs. — (*See* INDIGESTION and NERVOUS DISEASES.)

Hypochondriasis is often accompanied with false and perverted notions of the Creator, with gloomy views of life, and a lingering dread of death. On this occasion we can defy the reproaches which are so often thrown out on the *uncertainty* of medicine, and recommend a *certain* cure — a corroborant for the mind, and a cordial for the heart. If the curiosity of the reader be excited by this declaration, I trust his hopes will not be disappointed, when I refer him to the doctrine of the New Testament. That doctrine impresses the most cheering notions of the Deity, as the father and friend of man; who is studiously promoting our greatest good in all the varied circumstances of our lives: it teaches us that we are constantly under His guard and protection: and that even the sufferings which He inflicts are intended for our benefit. Here we may find a solution for every anxious doubt, and a place of refuge for every intrusive care. Hence we learn that life is only a probationary state; that it must consequently be chequered with good and evil, in order to form a school of wisdom, in which virtue may be disciplined for the fruition of eternity. To that eternity it teaches us that death is the vestibule; and, consequently, that the termination of our

mortal existence, which is often such an object of horror to the hypochondriac, ought to be regarded only as the commencement of unspeakable serenity and joy. But as the melancholy which harasses the peace of the hypochondriac is often shaded with the sombre tint of superstition, those religious books should be particularly perused, which, without insisting on any points of doctrinal uncertainty, tend to inspire a rational and elevated piety,—the principles of which consist in the love of God, and in unfeigned good-will to all mankind.

The hypochondriac should be careful that by seeking to escape one rock he does not split on another. Superstition and enthusiasm are two powerful sources of delusion; and in the hypochondriac, whose intellects are naturally weak, either might produce mental derangement. That devotion is best which is most rational and well founded, and teaches man to regard the moral duties of Christianity. The prevailing temper of the mind is often formed by religion; for, unquestionably, nothing can tend more to ennoble and strengthen it than an intercourse with Supreme Perfection. The pure love of God naturally connects itself with the love of man; hence rational devotion humanizes our manners, tames our unruly passions, and exalts and expands the mind: it smooths what is rough, and softens what is fierce in our nature; it promotes a humble submission to the decrees of Heaven, and cheerful contentment with our lot, in this transitory existence. Although the mind of the hypochondriac appears to be constantly engaged in the means of preserving life, yet, anxious his friends should suppose that he totally disregards it, he compares it to a "drop of honey in a pint of gall." The devout man regards life, with all its interests, as a very small part of his existence; and, looking forward to the eternity to which it leads, discovers fresh subjects of admiration and gratitude. He says to his Creator, "Let the men of the world have *their portion in this life: be it mine to behold thy face in righteousness, and when I awake to be satisfied with thy likeness:*" or, as beautifully expressed by Pope —

> "This day be bread and peace my lot;
> All else beneath the sun
> *Thou know'st if best bestow'd or not,*
> *And let thy will be done.*"

In my late Practical Treatise on the Virtues of the Buchu in Nervous Complaints, I have particularly noticed the different causes of the hypochondriasis of youth.

OF THE HYSTERIC PASSION. — Females are more liable to this disease than males, in consequence of the great sympathy which exists between the brain and womb. Slight

irritation in the latter organ often disturbs the nervous system so as to occasion the convulsions termed hysteric fits.

Symptoms. — The hysteric fit commonly begins with some pain and fulness in the left side of the bowels, from which the patient has the sensation of a ball moving with a grumbling noise into the other part of the bowels, and making, as it were, various convolutions, seems to pass into the stomach; and, more distinctly still, rises up to the top of the gullet, where it remains for some time, and gives a sense of suffocation, when the patient is affected with a stupor and insensibility, and the body agitated with various convulsions: commonly the convulsive motion of one arm is that of beating the breast very violently and repeatedly with the closed fist. This state continues for some time, with slight remissions and renewals of the convulsive motions; which at length cease, leaving the patient in a stupid and seemingly sleeping state. More or less suddenly, and frequently with repeated sighing and sobbing, together with a murmuring noise in the bowels, the patient returns to the exercise of sense and motion, and generally without any recollection of the several circumstances that had taken place during the fit.

In females, this disease occurs from the age of puberty to that of thirty-five years; and very rarely appears before the former, or after the latter of these periods, and generally occurs about the time of menstruation: it affects the barren more than the breeding woman, and the sanguine and robust more than the phlegmatic and melancholic.

It sometimes arises in young women from a peculiar turn of mind, when the passions are high, and the imagination heated.*

Treatment. — The morbid irritability of the nervous system attendant on this disease occurring both in the plethoric and robust, as well as in the debilitated and leucophlegmatic, the treatment must be regulated by the state of constitution. If the patient be in a debilitated state, the fit may be relieved by the Antihysteric Mixture†, p. 110, to each dose of which, in obstinate cases, a tea-spoonful of ether, and ten drops of laudanum, or

* A late author justly observes, "that the novels that fill our circulating libraries, which are read with avidity both by mothers and daughters, under the mask of morality, are more injurious to female virtue than the most openly licentious and immodest publications."

† It is remarkable, that the most nauseous medicines of the Materia Medica were recommended by the ancient physicians, and are still employed in the treatment of hysterical complaints. As these remedies produce no salutary effect, when administered, *during* the hysteric paroxysm, it is probable that their operation on the body arises from the disgust they produce in the mind; and as the ancients paid more attention to the management of the mind during disease than the moderns, it was perhaps with this view that they were first prescribed.

six of the acetate of morphine, may be added. The feet should be immersed in warm water, and spirit of hartshorn, or smelling salts, applied to the nostrils, and cold water sprinkled over the face. If the patient be incapable of swallowing, the Antispasmodic Clyster, p. 106, may be exhibited.

During the hysteric fit in a plethoric subject, the nervous system being in a state of considerable excitement, officiousness, such as forcing open the hands and violently slapping them, dashing water over the face, filling the mouth with liquids, applying pungent salts to the nostrils, &c. tends to keep up the morbid irritation of the nerves, and of course to prolong the fit. If the patient be placed on a bed, and care taken that she does not hurt herself, she will much sooner recover than if such attempts be made to hasten the termination of the fit.

Hysteric fits often arise from a disordered state of the digestive organs; and in all cases the nervous system is rendered irritable by it, and hence favouring the hysteric affection.

During the absence of the fit, it will therefore be proper to strengthen the stomach, and of course the nervous system, by the Nervous Mixture (C), p. 113.

Costiveness should be obviated, by taking every or every other night one or two of the Purgative Pills, p. 117. Cold water, applied to the head or forehead, every morning, by means of a napkin, will also prove very beneficial, by diminishing the susceptibility of the nervous system.

If the patient be of a full habit of body, or subject to headache from over-distention of the vessels of the brain, it will be advisable to take eight or ten ounces of blood from the arm, and to unload the intestines by the Purgative Mixture (A), p. 113. If the affection occur at the period of menstruation, which is generally the case, placing the feet in warm water of about 100 degrees, and the use of an aperient medicine, will supersede the necessity of bleeding.

In the 13th number of the Gazette of Health, a case of hysteric passion is given, that resisted the usual remedies, in which the tincture of the Colchicum Seeds was administered in the dose of 30 drops, in a glass of water, every eight hours, by Dr. Alderson of Norwich, with complete success.

A morbid irritation of the nervous system, which always accompanies this complaint, is very liable to be excited by the passions of the mind. The learned Sauvage observes, nothing contributes to aggravate hysteria more than indolence and vacancy of mind; and Dr. Falconer recommends some interesting pursuits to occupy the attention. Even fear itself, gradually introduced, and where no imminent danger is apprehended, has been efficacious in keeping off a paroxysm.

The displeasure of a parent, supposed likely to be incurred by the return of the hysteric fit, has contributed to prevent it; and Dr. F. observed that, during the troubles in Scotland, in the years 1745 and 1746, this disease scarcely made its appearance. Hysteric fits are very apt to recur on the sight of people affected with them. Dr. Falconer states that he once had an opportunity of seeing an instance of this kind at a public watering place:— a lady was seized with hysteric convulsions during the time of divine service; in less than a minute six persons were affected in a similar manner, some of whom had never before been subject to such attacks, but were, notwithstanding, violently agitated and convulsed, both in body and mind. But, though such instances as these show the propriety of prudent caution, yet *too great* a solicitude to avoid every thing likely to give uneasiness, specially if such solicitude be very apparent, is likely to do as much mischief as service. Nothing so much enhances the apprehension of danger, or so often causes those on whose account the care is taken to believe the hazard greater than it really is; and such circumstances frequently recurring, keep them perpetually in a state of painful irritability, which, in reality, constitutes the disorder. It would be much better to inure such persons *gradually* to the common occurrences of life, and to the occasional mention of such things, which, if not magnified by the relators, or dwelt on as meriting particular attention, will come in time to be disregarded, and their effects destroyed.

Instead of this, it is too usual with parents to foster the sensibility of their children, especially females, to an unnatural degree, by officious attention to remove every thing that can give the least interruption to pleasure, or even awaken the mind to its natural and necessary exertions. Affection contributes its share to enhance these complaints: an *unnatural* and *morbid sensibility* is often encouraged under the idea of *delicacy* and *tender feelings;* and even sickness itself is sometimes feigned, as being imagined, however falsely, a mask of disposition of this kind. But if we take the trouble of examining human nature more accurately, we shall find that the *liberal* and *truly amiable virtues* of *humanity* and *benevolence* are much more frequently found in persons of a *steady* mind and temper, who have experienced variety of fortune, than in those who have passed their lives in a regular course of luxurious indulgencies which always generate selfish and mean sentiments.

It is remarked by an eminent moralist, that men who have met with an *uniform* compliance with their will, are inclined to cruelty and severity. A mixture of adverse with prosperous fortune is necessary to inspire humanity and pity.

Practical Remarks.—The morbid excitability of the nervous system in hysteria is of two kinds, viz. super-irritative and sub-irritative, *i. e.* attended with fulness and increased vigour of system, and with debility and depletion. In the former, the countenance is florid, and the body plump; and in the latter, the face is pale, and the flesh soft and flaccid. In the treatment of the super-irritative kind, remedies to reduce the system are necessary; and in the treatment of the sub-irritative, stimulants and tonics are proper. During the violence of a fit, little can be done in either case to accelerate its termination. The object of practice is, therefore, to prevent its recurrence.

OF INCONTINENCE OF URINE. — This disease consists in an involuntary evacuation of urine.

CAUSES. — In elderly people this disease is generally the consequence of weakness or palsy of the muscle of the bladder; but in subjects not far advanced in age it is frequently the consequence of excessive irritability of the bladder or irritation or inflammation of the prostate gland, from the action of gravel, ulceration, or organic disease from injury of parts in the operation for extracting the stone; from pressure of the womb in a state of pregnancy; and sometimes, in women, from a communication between the bladder and vagina, from ulceration after difficult labour.

TREATMENT. — When it arises from the want of tone or power in the muscular fibres of the bladder, a blister should be applied over the lowermost part of the back-bone, and when the surface has healed, the irritation should be kept up by a stimulant, as the Euphorbium plaster. The Tonic Mixture (B), p. 115, should be taken, to each dose of which ten or fifteen drops of the tincture of cantharides may be added, if the disease be of long standing, or should continue obstinate; and also half a grain of calomel made into a pill, with a little conserve of roses, may be taken every other night, in the manner as directed for indigestion; which, with cold-bathing, electricity, and a generous diet, will probably succeed in removing the cause. When it is occasioned by stone or gravel, it requires the same treatment as recommended for the latter disease. When it is the consequence of morbid irritation of the bladder, prostate gland, or disease in the urethra, the tincture of buchu leaves, in the dose of two tea-spoonsful, two or three times a day, in a large wine-glassful of the decoction of marshmallow root, is a very valuable remedy. The diet should be free from stimulants, as spices, wine, or spirits. When the effect of injury sustained in the operation for the stone, great relief is afforded in males by the pressure of the instrument called Jugum, and in females by the globular Pessary. When it is produced by an impregnated womb, an horizontal position should be observed as much as possible. When a communication exists between

the bladder and vagina, it will neither admit of cure nor much relief. This distressing case is generally produced by inflammation, and consequent sloughing, succeeding difficult parturition. It is often attributed to palsy, or loss of tone in the muscular fibres of the bladder, and, as such, I have frequently known it treated by routine physicians, who have been considered eminent by the public, to the great injury of the patient; practitioners should, therefore, satisfy their minds as to the *real cause* of the disease, before they prescribe *active* remedies for its cure. In my late treatise on the medicinal virtues of the buchu leaves, I have particularly noticed the varieties of this disease.

Practical Remarks. — It is of importance in this disease to ascertain whether it be the consequence of debility of the sphincter muscle of the bladder, or of irritability, as the remedies applicable to the one will prove improper in the other.

OF INDIGESTION. — The digestion of food is divided into two stages, viz. the conversion of the food into chyme, which takes place in the stomach; and the production of chyle, which is effected in the upper part of the small intestines, termed the duodenum; and those organs which are concerned in these processes, are denominated the digestive, as the teeth, salivary glands, stomach, duodenum, pancreas, and liver.

When the process is imperfect, it is termed *indigestion;* that is, the food is not properly converted into chyme, and, consequently, the chyle produced in the duodenum cannot be healthy, or fit for the nourishment of the body. By the process in the stomach, the specific or chemical differences in animal and vegetable food are destroyed, the chyle from different aliments, either taken singly or together, possessing the same chemical or sensible properties; hence the process of digestion is termed assimilation. Notwithstanding the ingenuity of the most eminent ancient and modern physiologists has been exercised, or rather exhausted, in attempts to account for the process of digestion, no theory has been broached that satisfactorily explains all its phenomena. Hippocrates attributed the conversion of aliment into chyme, to a putrefactive process; Pringle and Macbridge, to a fermentative process; and the celebrated physiologist, Haller, to a joint action of solution and fermentation. Such was the state of chemistry in the times when these authors flourished, that the difference of their opinions evidently consists only in words. Van Helmont ascribed it to the energy of his *archeus* in the stomach; and, fanciful as the idea may appear to be in language, the process is unquestionably very intimately connected with the *vital* principle.*

* Van Helmont termed the power which superintends the animal economy, *archeus*. However language has diversified the nature and operation

By the most modern physiologists, the changes that take place in the aliment in the stomach are attributed either to fermentation or solution; but each gives a due share to the previous division of the food by mastication, combination with saliva, a certain degree of temperature (from 98 to 100 Fahr.), and gentle agitation by the action of the muscular fibres of the stomach, producing a regular, progressive, and retrograde motion. Those who contend that digestion is a simple solution (an opinion which is generally maintained by the medical profession of this country), assert that it is effected by a peculiar secretion of certain glands of the stomach, which they term the gastric juice, and which, from its action on different articles of the three kingdoms of nature, according to their account, may be considered nearly an universal solvent. The reports of Hunter, and the experiments of many physiologists of Europe, are greatly in favour of this opinion; but when we so frequently meet with the products of fermentation in the stomach, as acetous acid and carbonic acid gas, it is not improbable that the separation of the particles of food, and its conversion into the slimy mass termed chyme, are effected by a peculiar fermentative process excited by the gastric juice; and when the temperature of the stomach runs too high, or when the gastric juice is not healthy or deficient in quantity, the peculiar fermentative process is imperfect, rapidly running into the acetous stage: be this as it may, all must agree that the circumstances necessary for a healthy digestion are,

1stly, A proper mastication of the food, and a thorough mixture of it with saliva.

2dly, A certain degree of temperature of the stomach (from 98 to 100 Fahr.)

3dly, A certain quantity of healthy gastric juice.

4thly, A certain degree of power of the muscular fibres of the stomach, and of the diaphragm and abdominal muscles.

5thly, A free state of the intestines.

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of this principle, and the idea has been ridiculed by some *philosophical* atheists, who exercise their ingenuity to unsettle the minds of those who are incapable of sound reflection, as to the idea of a spiritual superaddition to the body; the existence of the power in the animal system, vulgarly termed Nature, by correcting accidental deviations from health, repairing local injuries, and preserving the body in a sound state, must appear obvious to every practitioner of experience and observation. When NATURE is said to act, such a principle is implied. Van Helmont, who evidently possessed a sound judgment and extensive knowledge, placed his *archeus* (the grand regulator and conservator of the animal machine) in the stomach; and the fact of the tendinous part of meat and parts of aliment, which have not been properly masticated, being returned to the mouth, seems to favour this opinion.

And, 6thly, A free or cheerful state of mind. *

By indigestion, as I have already observed, is understood an imperfect dissolution of the food in the stomach, which is technically termed *dyspepsy*, signifying badly-concocted food. This complaint, from which very few in the high and middle classes of society are entirely exempt, is noticed by Cullen as a *primary* disease, a genus of the order *adynamiæ*, from diminution of the involuntary powers, vital or natural, and by all writers, ancient and modern, it is ascribed to *debility* of the stomach. The imperfect conversion of food into chyme, or the non-digestion of proper food in the stomach after being properly masticated, it is obvious, must be the consequence of a disordered state of the stomach, either primary or sympathetic; and every person of common sense must be aware that the disordered condition of the stomach is frequently of an opposite nature. Indigestion is as common in robust as in weakly subjects, and in those whose stomachs, from frequent stimulation and indulgence in savoury dishes and vinous or spirituous liquors, are in a state of excessive excitement, and in direct opposition to that of debility. The fact is, in such subjects, the temperature of the stomach being much above the natural standard, the secretion of gastric juice is unhealthy; the consequence of which is, a rapid fermentative process takes place, of which the acetic and carbonic acids, often in considerable quantity, are the products. By this overstimulation of the stomach, and the unhealthy products in it, the brain is more or less disturbed, and the action of the heart accelerated, so as to occasion a feverish state of the whole body. The indigestion of inebriates and gluttons, in subjects not advanced in life, is, in fact, the consequence of a state of stomach opposite to that of debility or relaxation. The disordered state of the stomach, of which indigestion is a consequence, may again arise from organic disease, either of the pyloric or cardiac portion of the stomach, which, when attended with irritation, is in an opposite state to that of debility. The stomach, again, is frequently disturbed by sympathy. † A plethoric state of the system, by disturbing or compressing the brain, or by oppressing the heart, will disorder the stomach, and occasion bad digestion, and in such case the cause is not direct debility.

* Laborious or harassing occupation and distress of mind, especially grief, are very frequent causes of the most obstinate cases of indigestion.

† The blind followers of the chylopoietic theory of Mr. Abernethy, attributing almost all local disease to a disordered condition of the organs of digestion, hold in great contempt all topical remedies in local diseases; but in cases of piles and organic disease of the rectum, the accompanying disorder of the stomach is in general sympathetic, declining in proportion as the latter is relieved. The same may be said of a great variety of local diseases remote from the stomach.

These opposite varieties of indigestion I have particularly described under the head of *Stomachics*, page 47. About six years ago, I particularly noticed the variety of indigestion arising from morbid nervous excitement of the stomach, from indulgence in vinous and spirituous liquors, savoury dishes, and full meals, in the Monthly Gazette of Health; since which, Dr. James Johnson has published a work on it, as a discovery of his own, in which he terms it indigestion from morbid sensibility of the stomach. As it is of great importance to ascertain the variety of indigestion, in order to adopt a proper treatment, I shall oppose the characteristic symptoms of each, in columns:—

Common Symptoms of Indigestion from increased nervous Excitement.	*Common Symptoms of Indigestion from Debility.*
Flatulence of stomach; heartburn; frequent headache; confusion of mind; quick pulse; pains in the knees or ankles; warm hands and feet; high-coloured urine; flatulence in the lower intestines; drowsiness after dinner; redness of eyes; restless nights; dreaming; night-mare; irascibility; hypochondriacal feelings between breakfast and dinner; noises in the ears; frequently a pain in the stomach on swallowing a powerful stimulus, as brandy; sense of distention of the bowels after tea; great relief from purging. The countenance florid; a draught of soda water acts as a cordial, removing the sense of oppression; cold water applied to the head invigorates the system, allays nervous excitement of the brain, and quiets the circulation. The weak wines, British wines, and malt liquor become acid a few minutes after being swallowed, occasioning heartburn and flatulence, and when taken an hour or two before dinner, disturbing the head and stomach; heat in the palms of the hands, particularly before and after dinner. Cider and perry grateful and refreshing.	Free from heartburn; little flatulence in the stomach; head generally free from pain; mind clear; the pulse slow and languid; lower extremities cold, generally swelling towards the evening; the urine pale and frequently muddy or cloudy; sleep generally sound, and unattended with dreaming; the eyes pale; temper even; depression of spirits an hour or two before dinner; giddiness, generally without noise in the ears; Brandy and other stimulants grateful to the stomach. Purging generally increasing the sense of debility; the countenance pallid. A glass of soda water occasions distention of stomach, and depresses the spirits. Cold water to the head debilitates the system, and often occasions dimness of sight, noise in the ears, and fluttering of the heart. Weak wines, British wines, and malt liquor generally agree with the stomach, never becoming acid or occasioning flatulence in the stomach; a glass of wine taken about an hour before dinner invigorates the stomach, and promotes appetite. The palms of the hands cold. Cider and perry cold and unpleasant to the stomach.

Disease of the stomach, intestines, or lungs, again disorder the head, and, by preventing sound sleep, keeps up the action in the brain, of which dreaming is a consequence. This being attendant more on disease of some part of the alimentary canal and of the lungs, than of the liver or spleen, shows that the sympathy between them and the brain is greater than between the brain and the latter viscera.

In fact, the non-conversion of food into healthy chyme, termed indigestion, is the effect not only of a variety of disorders (pri-

mary and sympathetic) of the stomach, but of disorders diametrically opposite; and under no circumstance, in my opinion, can a *mere imperfect process* be termed a *primary* disease, being only the consequence of some disease or disorder of the organ itself: and whoever considers the great variety and opposite nature of diseases or disorders of the different organs of the body, especially of the stomach, must be convinced of the absurdity of publishing a dissertation on indigestion, as a *primary* disease, and on laying down general instruction as to medicine, diet, &c. &c., for its treatment, or—as some late writers, who cannot extend their views of disease beyond the liver, say—"for the *cure* of *indigestion* and its consequences."

In cases of indigestion from a feverish condition of the stomach, or continued state of excitement of its nerves, in consequence of the frequent and excessive use of stimulating liquors and savoury dishes, it is a common practice to unload the alimentary canal two or three times a week, by an active purgative, and to administer a bitter infusion two or three times a day, to *strengthen* the stomach; and such treatment generally proves beneficial; the bitter infusion — as colombo, quassia, and gentian, like many other vegetable bitters, with little or no astringent principle — being sedatives: but the continued use of such intense bitters, and the frequent exhibition of a drastic purgative, will assuredly, sooner or later, produce such a state of the alimentary canal, favouring structural or organic mischief. Indeed, there is no fact better established in medicine, than that a regular use of a strong bitter will occasion, in the course of five or six years, a fatal paralysis of the stomach. *

A common cause of indigestion in this country, particularly among sedentary and studious people, is unquestionably an overloaded state of the vessels of the head and of the intestines, from costiveness; for even in the cases from over-stimulation, or from gluttony, it is of great importance to maintain a regular state of bowels, in order to prevent mischief in the brain or lungs.

Costiveness is generally noticed among the symptoms of indigestion; but experience has satisfied my mind, that indigestion is much more frequently the consequence of costiveness than costiveness is of indigestion. Professor Cullen particularly notices costiveness as a *symptom* of indigestion; and Dr. Good, in his chapter on Indigestion, observes, "the debility, and indeed torpi-

* The vegetable bitters are, unquestionably, powerful poisons to a great variety of small animals; and probably the reason of the bark of trees, &c. being impregnated with this principle, is to protect the trunk from their devastation. The preparation of Peruvian bark, termed quinine, is a very potent bitter; and being a sedative, has proved very injurious in cases of indigestion from debility of the stomach.

tude of the intestinal canal, is evident from the *habitual costiveness* which so *peculiarly characterises* this affection; and nothing," says he, "can be a stronger proof of the great *inactivity* of the intestinal tube, from whatever cause produced, than the feebleness of its peristaltic motion, notwithstanding the *pungency* of the acid and other acrimonious matters that are so frequently found in the stomach, and hence so frequently diffusing their asperity over its inner surface." If the costiveness be a symptom, or the consequence of indigestion, it cannot with propriety be termed *habitual;* and as to the acid which forms in the stomach, it has been considered, by some writers, to be so astringent as to be capable of constipating the bowels of adults; and I have certainly met with obstinate costiveness, attended with distressing heartburn, from the prevalence of acid matter. With respect to the "diffused action of other pungent acrimonious humours not increasing the peristaltic motion so as to obviate costiveness," it is well known, that when the fæces, from retention, become acrimonious, they so far increase the peristaltic motion as to occasion violent purging, and sometimes inflammatory action. On the prevailing opinion, that diminution of the peristaltic motion is a consequence of a want of tone in the muscular coats of the intestines, Dr. Hamilton makes the following observation: — "I am inclined to think that the symptoms referred to loss of tone proceed on many occasions more directly from the *impeded* peristaltic motion, the *consequence* of constipation. In this situation," says the doctor, "we may easily understand, that the distended colon cannot, for want of space, receive the contents of the small intestines, which will, of course, stagnate throughout the whole canal; the action of which, being thus interrupted, will soon altogether cease, and be at last inverted. The various ailments which thence ensue are daily before our eyes, and the relief which, under these circumstances, we observe to follow soon after the exhibition of a purgative, and the cessation of complaint upon its operating freely by stool, are in proof that this opinion is well founded." When the intestines are overloaded with fæces, so as to impede the peristaltic motion, it is not to be expected that the stomach will continue to perform its office; and as to the beneficial effects of an aperient medicine on the stomach, in removing dyspeptic symptoms, without the aid of a stomachic or tonic medicine, they are known to every patient who has taken a dose under such circumstances; and every practitioner of experience and observation, I think, will agree in the opinion, that ninety-nine cases of indigestion out of every hundred, of common occurrence, arise from neglect of the bowels; and that, generally speaking, if proper attention be paid to the state of the intestines, the stomach will take care of itself. The baneful effects of over distention of the intestinal

tube from constipation, is not confined to the stomach and intestines; for the descending aorta, and its ramifications, being compressed by the distended bowels, the blood is conveyed in too great a quantity to the upper part of the body, occasioning head-ache, difficulty of breathing, a full pulse, and increased heat in the upper extremities, while the temperature of the lower extremities is reduced in consequence of the circulation of blood to them being checked. Hence costiveness is a common forerunner of apoplexy, epilepsy, pulmonary consumption, and a great variety of other diseases. Indeed, the beneficial effects of purging, in cases of congestion of the vessels of the head and lungs, frequently arise from the removal of the mechanical causes of the retarded or checked circulation in the abdominal viscera and lower extremities, by liberating, as it were, the descending aorta, and the other arteries of the abdomen, and not from preventing absorption of chyle, and diminishing the quantity of circulating fluid, by hurrying the chyle through the intestinal canal, as some practitioners imagine; for on cases of inflammation of the lungs or brain, unaccompanied with constipation, purging medicines, even when they produce frequent copious evacuations, make little or no impression.

For the purpose of regulating the bowels, the Aperient Pills, page 117, or Purgative Pills (A), in the same page, may be taken as there directed. — (*See* also CATHARTICS, page 19.) — If the stomach has suffered from continued bad digestion, or over-stimulation, a stomachic will be necessary, such as the alcaline tincture of fumitory, two or three tea-spoonsful of which may be taken in a wine-glassful of water, or the Stomachic Mixture (A or B), p. 115.

When the sanguiferous system is evidently overloaded, and particularly when the brain is disordered by fulness of blood-vessels, abstraction of blood, by cupping or leeches, will be proper. (*See* EVACUANTS, p. 33.)

When the stomach is evidently in a state of great debility, either from a long-continued indulgence in spirits, wines, stimulating diet, or from age, two or three tea-spoonsful of the volatile aromatic tincture of bark may be taken two or three times a day, in a glass of water, in lieu of the alcaline tincture of fumitory *, or the Tonic Mixture (A or B), page 115.

If the affection of the stomach has been of some months' standing, the probability is, the cellular substance, or veins of the viscera, are overloaded. In such cases, the beneficial effect

* The tincture of canella alba was a very favourite remedy with the late Dr. Baillie, for the indigestion of elderly people; but being aromatic only, a tonic addition, as the essential salt of bark, is necessary to render its effects permanent.

of purgative and stomachic medicines, and attention to diet, will be of short duration, unless the visceral obstruction be removed. In order, therefore, to render the cure permanent, three or four grains of the blue pill should be given every night, for about a week. This medicine will not only remove the visceral congestion, but render the stomach, &c. more susceptible of the action of a strengthening medicine, and being diffused throughout the abdominal viscera, will establish a healthy harmony between them.—(*See* DIURETICS, p. 25, TONICS, p. 49, and STOMACHICS, p. 45.)

In this variety of indigestion, the simple decoction of sarsaparilla, which generally proves beneficial (probably as a diluent) in the variety from *increased* nervous excitement, oppresses the stomach, and increases its debility.

The conversion of food into good chyme, greatly depending on its being properly masticated, and mixed with healthy saliva, the mouth may be considered as forming a part of the digestive organs. The process of digestion is, no doubt, often disturbed or rendered imperfect by morbid secretions of the mouth, especially of the salivary glands, unhealthy mucus of the tongue, and the collection about the teeth termed tartar. Attention, therefore, should be paid to the condition of the mouth, as well as to the stomach and intestines. The teeth should not only be cleaned every morning by a powder, that will remove the collection, without abrading the enamel, before breakfast, but also the gums and the tongue, with an astringent lotion, not only to remove unhealthy matter, but to strengthen the gums, and the salivary and other glands, so as to produce healthy secretions. That there is a kind of continuous sympathy or feeling between the mouth and stomach (from continuation of surface and nervous connection), must appear evident to every person who has paid any attention to them. The sense of hunger and disease in the stomach, will bring on a copious secretion of saliva, and mechanical irritation of the fauces will excite vomiting. The strengthening effects of an astringent lotion on the tongue, gums, &c. are communicated to the stomach; and I have known many invalids from indigestion, receive more benefit from such lotion than from the use of a tonic medicine taken into the stomach.—(*See* PREPARED ARECA CHARCOAL, p. 155.)

Indigestion being, in fact, only a *symptom* of some disorder or disease of the stomach, which again may be primary or sympathetic, a treatment applied to it only, must, of course, in a majority of cases, prove only palliative, and in order permanently to remove it, the treatment must be directed to the primary affection, as well as the mitigation of troublesome symptoms.

With respect to diet, there is so much peculiarity of stomach and constitution in dyspeptic subjects, that it is impossible to give instructions applicable to every case. In general, broths, with celery or green vegetables, gravy soups, and thick soups, onions, stuffing, the outside of roasted meat (particularly of pork), green vegetables, either boiled or raw, as cabbage, spinach, celery, water-cress, &c. pastry, raw fruit, cows' milk, eggs, and tea, are improper. — (*See* Remarks on DIET, page 200.) — In my Treatise on the Regulation of the Stomach and Intestines, I have enlarged on the treatment of indigestion of elderly people, bordering on that condition of the system, termed by Sir Henry Halford the climacteric disease, or breaking up of the constitution.

Dr. Wilson Philip has noticed, in his publication on indigestion and its consequences, a variety of consumption from indigestion, to which he has given the name of dyspeptic indigestion; but the disease in the lungs is in such cases always of a constitutional nature, and is brought into action by the cause of the indigestion; and when the disease of the lungs has advanced to its second stage, the disorder of the stomach generally ceases, and although the digestion becomes perfect, the affection of the lungs advances.

PREVENTION. — It must appear evident, from the foregoing observations on the causes of this disease, that the most effectual prevention consists in, 1st, properly exercising the body; 2dly, proportioning the quantity of food to the degree of exercise *; and, 3dly, relinquishing the use of spirituous or vinous liquors, tea, and coffee. If sufficient bodily exertions cannot be taken, in consequence of debility or age, and an artificial appetite must be produced by stimulating the digestive organs, such stimulants should be employed as will not injure the coats of the stomach, nor disturb the brain. Of this class, ginger, Cayenne pepper, and well-seasoned pickles, are the most innocent and effectual. Of wines, sound Madeira and Port are the best.

In the Gazette of Health, a composition of the buds of red roses, rosemary, sage, &c. is much recommended as a substitute for tea or coffee, in cases of indigestion; and in many incipient complaints it has proved very beneficial. It is certainly a power-

* It is not an easy matter to ascertain the exact quantity of food proper for every age, sex, and constitution; the best rule is to avoid extremes. Three meals in a day are as many as nature requires, and certainly as much as the stomach can *properly* digest: dinner ought to form the chief of these. Hearty suppers, particularly of meat, in which some people indulge themselves, previously to their retiring to rest, are highly prejudicial to health; hence, the old adage:

> "Great suppers a very great evil we call:
> That sleep may be sound, let your supper be small."

ful auxiliary to medicine, and, as a preventive of indigestion, after the cause has been removed, is very efficacious. *

Those who are in the habit of drinking a quantity of spirit, or spirituous wines, will receive great relief by taking water at meals †, instead of wine or malt liquors. I have known cases of indigestion from the use of spirits, attended with symptoms indicative of organic disease of the stomach, cured by drinking at meal-times nothing but distilled water, and gradually diminishing the quantity of wine, till it was reduced from eight glasses to one in a day. — (*See* DIET, DRINK, and EXERCISE.)

Practical Remarks. — From the preceding observations, it will appear, that indigestion arises from a variety of causes; that it is equally a disease of plenitude or excess of health, as of debility or depletion; that the principal cause, in this country, is inflammatory or nervous excitement of the stomach, in consequence of being over-stimulated by wine and high-seasoned dishes; that, when fulness of system prevails, bleeding and aperient medicines are the best remedies; that, when general debility of the system is an attendant, tonic medicines are necessary (see HEARTBURN); that, if the disease proves obstinate, some organic mischief may be suspected, either of the coats of the stomach, pancreas, liver, or intestines; in which case mercury is necessary, and the application of the Euphorbium plaster; that, in all cases, particular attention must be paid to diet and exercise; that water, during meals, is the best beverage; and that meat under-cooked is the most easy of digestion, as well as being more nutritious.

OF INFLAMMATORY FEVER. — SYMPTOMS. — This fever is distinguished by an increased heat of body, without any material remission, attended with a throbbing, generally pungent, but sometimes dull and heavy, pain in the head; the face, and particularly the eyes, are red; the pulse strong, full, and quick; great thirst; sense of general lassitude; the urine high coloured; the tongue is generally covered with a white fur; the brain much disordered, and rest disturbed.

CAUSES. — Whatever disturbs the brain, or checks the secretion of the skin, will, in plethoric habits, or irritable subjects, produce inflammatory fever.

* This composition, which is much cheaper than tea or coffee, is sold at 170, Piccadilly.

† During a meal, water is certainly the best beverage. The custom of drinking fermented liquors, and particularly wine, during dinner, is a very pernicious one. The idea that they assist digestion is false; for those who are acquainted with chemistry, know that food is hardened, and rendered less digestible by them; and the stimulus which wine gives to the stomach is not necessary, excepting to the aged or those who have exhausted the excitability of that organ by excessive use of strong liquors. If food want diluting, water is the best diluent, and will prevent the rising, as it is called, of strong food, more effectually than wine or spirits.

TREATMENT.—In the treatment of this fever our object is to allay the increased excitement of the brain, and to diminish the quantity of blood: the former is best effected by the application of cold water to the head, and the latter by abstraction of blood by cupping or leeches, if the subject be young, but if advanced in life, by opening a vein. The intestines should be unloaded by the Purgative Mixture (A), p. 113. If the stomach be much disordered, and the head not much affected, the Emetic Draught, p. 106, should be exhibited. If, after the operation of these remedies, the skin should continue dry, perspiration should be excited by the Antimonial Wine as directed, p. 66; and if this should fail, the body should be placed in a warm vapour bath of about 110 degrees Fahr.; the Saline Mixture (A or B), p. 114, with the wine of the colchicum seeds, or the tincture of foxglove, may be taken, and the perspiration kept up by small doses of ten or twenty drops of tartarised Antimony Wine, with warm diluent liquids, as barley-water, common whey, &c., and the body kept open by means of the aperient mixture.

In all fevers, but particularly the inflammatory, it is of great consequence to keep the skin moist; for by the evaporation of perspirable matter superabundant heat is conducted from the system. A dry skin, on the contrary, by favouring the accumulation of heat, never fails to aggravate all the symptoms. If there be considerable determination of blood to the head, the application of leeches to the temples, a blister to the nape of the neck, and the immersion of the feet in warm water, should not be neglected; and if the patient complain of stitches in the chest and difficulty of breathing, abstraction of blood should be repeated, and a blister applied over the breast-bone. In the treatment of inflammatory fever, the practitioner should always attend to local pains and affections; for in persons who have an internal part very irritable or predisposed to disease, the fever is very likely to occasion serious mischief in it. In such cases, local bleeding by leeches and blistering are of great importance. If, when the fever has subsided, morbid irritation of the brain exist, preventing sleep, ten or twelve drops of the solution of acetate of morphine may be given in a dose of the Saline Mixture. The diet should be principally arrow-root jelly, barley-water, gruel or tapioca, without spices or wine, till the inflammatory symptoms have considerably abated.

Washing the body with cold water, by means of a sponge, was much recommended by the late Dr. Currie, of Liverpool, and has certainly been attended with very beneficial effects, by diminishing nervous excitement, and conducting heat from the body; but the constant application of it to the head with a napkin will, after the first sponging, act equally beneficially.

When the fever has entirely subsided, the stomach should be invigorated, in order to lessen the period of convalescence by a mild strengthening medicine, as the Stomachic Mixture (D), p. 114.

OF INFLAMMATION OF THE BRAIN. — People in the vigour of life, the passionate, the studious, and such as are predisposed to apoplexy, are most subject to inflammation of the brain.

SYMPTOMS. — Inflammation of the brain, like other internal local inflammation, commences with rigours, tremor of the extremities, a sense of lassitude and stupor. The veins of the head soon become distended, and the arteries beat with increased force: the eyes are often steadfastly fixed, fierce, and sometimes sparkle; the voice shrill, and language incoherent; a proneness to anger, and at times a determined resolution to walk about the room: the pulse is generally languid, and the extremities cold; on dozing, he generally talks or mutters a great deal, with a chattering of the teeth, trembling of the hands, and almost constant motion of the fingers, which seem employed to pick or gather something, and often to gather the nap of the bed-clothes. After the *fourth* day, the delirium is more continual and furious, with watching, convulsions, and hiccup; the fæces pale, and at length, with the urine, are discharged involuntarily; the pupils of the eyes are dilated, and other symptoms of approaching dissolution ensue; or critical sweats and looseness come on, or bleeding at the nose, or piles, which are of a more propitious import.

CAUSES. — Excessive drinking, violent passions of the mind, exposure of the head to the sun, long watching, close application of the mind, suppression of natural evacuations, concussions of the brain, and whatever may increase the afflux of blood into the head.

TREATMENT. — The most powerful remedies should be employed, on the *first attack* of this disease, to unload the vessels of the head; for this purpose as much blood should be extracted as the system will bear, either by opening one or both the temporal arteries, or from the nape of the neck, by the operation termed cupping; or from the jugular vein, or the arm, by a *large* orifice, twelve or sixteen ounces of blood, or till the patient faints, which will prove of much greater advantage than double the quantity extracted from a small vessel, or by leeches. Cold water, or vinegar and water, should be kept constantly applied to the head, by means of napkins or folded linen, and removed when they become dry or warm. The bowels should be well emptied by the Purgative Mixture (A), p. 113, and the Purgative Clyster, p. 103. With the view of producing a diversion in the

circulation, blisters should be applied to the feet, the thighs, and arms; or the Stimulating Poultice, p. 122, to the feet. The room should be kept dark and quiet, and the patient supported with barley-water, acidulated with lemon-juice. Such is the delicate structure of the seat of the inflammation, that no time should be lost in the employment of these means, which, from the feeble state of the pulse, are too often neglected by timid or inexperienced practitioners, till the brain has sustained irreparable mischief.

The Saline Mixture may likewise be given every three or four hours, as directed, p. 114, to which six or eight drops of the Prussic acid, or one drachm of the tincture of foxglove, may be added; but, in inflammatory attacks of a part of such delicate structure, and so essential to life as the brain, the advice of the most skilful and experienced practitioner in the neighbourhood should be resorted to in the earliest stage of the attack.*

The state of the mind should, in this disease, be particularly attended to. The medical writers of antiquity have, with regard to this, given many very judicious directions. Aretæus remarks several circumstances, apparently minute, but, in reality, very important. Thus he advises, "quiet and calmness both to the sick person and his attendants, and that he should be placed in a chamber of moderate size, with the walls smooth, uniform, and regular, without projections, and not ornamented with variety of colours or paintings, as they are apt to distract the mind, and impose on the patient for realities. He orders even the bedclothes to be smooth, and of a regular surface, that the patient may not be induced to fatigue himself by picking the irregularities. He also directs that some of his most intimate friends may have access to him, and, by amusing discourse and mild expressions, endeavour to pacify and compose his perturbation of mind. He recommends, likewise, a compliance, as far as possible, with all the desires of the patient, especially if he be prone to anger and violence. If light be offensive, or seem to aggravate the disorder, by suggesting objects to the imagination, he orders the chamber to be kept dark; but if darkness, from the uncertain state of mind it induces, cause dread and horror, light is directed to be let in." Cœlius Aurelianus, a physician of great celebrity in his time, agrees in most of these points with Aretæus, to which he adds some useful cautions of his own. Thus he directs "the light to be mild and gentle, as of a lamp, or that of

* Routine physicians, whose practice is governed by the state of the pulse, and the effect more than the cause of disease, too often confound this affection with putrid fever; and, instead of the depleting plan recommended above, treat the phrenetic symptoms as delirium from debility. The pulse, observes the learned Celsus, *res fallacissima est;* and in this disease it is particularly so.

the day, let in through a small aperture, and directed principally to the face of the patient, as an object to fix his attention, and thus prevent the mind wandering in uncertain thoughts and ideas; — a precaution frequently useful in modern practice, and known to be of the greatest efficacy in calming delirium when not very violent. He also recommends that such persons should not be admitted to him, to whom he bore any aversion or dislike in his natural state of health; and that those people should be introduced whom he had been accustomed to respect and reverence; but that the visits of these should be only at intervals, in order that the influence of the mind might not be destroyed by habit and familiarity." All these precautions are extremely proper, being founded on reason and experience. These directions, however, more apply to the delirium attendant on low or irritative fever, than *active* inflammation of the brain; as in the latter instance the patient is for the most part in a state of insensibility.

INFLAMMATION OF THE EYE. — SYMPTOMS. — Pain, redness, heat, and tension of the ball of the eye, or its membranes, accompanied with intolerance of light, and generally with an effusion of hot acrid tears.

CAUSES. — External injury, excessive light, minute examinations, repeated intoxication *, intense heat, and obstructed perspiration, are the most frequent causes of this disease.

TREATMENT. — The *repeated* application of eight or twelve leeches to the eyelids or temples, blisters to the nape of the neck, the occasional use of the Purgative Mixture (A), p. 118, the constant application of the Discutient Lotion (D), p. 127 (by means of folded old linen), the Saline Mixture, p. 114, a dark room, and low diet, are all indispensably necessary in the treatment of this disease, and should be *speedily* employed, to prevent mischief, as opacity of the cornea, &c.† If the inflammation continue after the employment of these remedies, the blister should be kept open by dressings of the savin ointment, and the aperient mixture, application of leeches, &c. repeated; and if the patient be of a plethoric habit of body, or suffer from a determination of blood to the brain, producing pulsating or beating pain in the head, or giddiness, the extraction of blood from the jugular

* Inflammation, or redness of the eyes, is a distinguishing badge of a drunkard, remarked by the vulgar, as if to point him out by the finger of scorn. — "Who hath woe? who hath sorrow? who hath contentions? who hath babbling? who hath wounds without cause? who hath *redness of eyes?*" says Solomon. "They that tarry long at the wine; they that go to seek mixed wine."

† This effusion, terminating in adhesions of the layers, of which the transparent cornea consists, produces opacity, and is a very common cause of blindness.

vein or arm will also be proper. When the disease occurs periodically, or in a scrofulous habit, the Antiscrofulous Mixture (A), p. 111, should be substituted for the saline mixture, after due evacuations by the means above suggested. In case of much pain, six or eight drops of a strong solution of opium or morphine in water (filtered) may be dropped within the eyelids at bed-time, or twice a day, which will not only allay the pain, but often succeed in speedily dispersing the inflammation, particularly after the operation of the aperient medicine, &c. The electric aura applied to the eyes, is much recommended by Mr. Samuel Cam, an ingenious surgeon of Hereford, in whose practice, at the General Infirmary of that county, it has proved very successful. When the inflammation is deep-seated, and proves obstinate, five grains of blue pill may be administered with the saline mixture three times a day, till the gums are slightly affected, with the occasional abstraction of blood, the constant use of the cooling lotion, and the occasional exhibition of the purgative mixture. If the inflammation arise from venereal taint, the internal use of mercury will be absolutely necessary.

A low diet should be strictly observed.

When inflammation of the eyes occurs in subjects whose absorbent system is naturally delicate (termed the scrofulous habit), or in gouty subjects, it is generally of a very obstinate nature; and after the system is quieted by the foregoing means, will likewise require the treatment recommended for king's evil to complete the cure, particularly the prepared natron, the alterative pills, and decoction of marshmallow root. — (*See* ALTERATIVES, p. 3.) — When the subject is gouty, the ammoniated tincture of colchicum seeds should be given, as directed p. 149.

Chronic inflammation of the edges of the eyelids will also require the same constitutional remedies, which, with the use of the following ointment, will effect a cure: —

Take of Prepared Calomel, - - 1 drachm.
Fresh Spermaceti Ointment, - ½ ounce.
Mix.

To be applied to the edges of the eyelids, and particularly within the corners of the eyes, every night and morning, by means of a fine camel-hair pencil. In such cases, an issue in the neck or arm, and the Antiscrofulous Mixture (A), p. 111, will prevent a recurrence.

Infants born in winter are very subject to sore eyes, from the action of the cold air on them. All that is requisite in such cases, is to keep the head warm, and wash the eyes with fresh rose-water. If the inflammation should increase, it will be proper to add two grains of white vitriol to four ounces of rose or

elder-flower water, which should be dropped within the eyelids once or twice a day, and often applied externally by means of some fine lint; the bowels should likewise be emptied by a little magnesia and rhubarb, in mint-water. When the symptoms run high, the application of leeches to the eyelids, and a blister to the nape of the neck, or behind the ears, will be necessary.

Infants are sometimes attacked with sore eyes a few days after birth, attended with a discharge of thick matter, which, if not skilfully treated, may terminate in blindness; and, being very rapid in its progress, the advice of an experienced surgeon should be taken on its first appearance. In this case, the bowels should be emptied twice or three times a week, by one or two grains of calomel, with or without rhubarb, as the state of the bowels may indicate; and folds of fine old linen frequently immersed in the following lotion, should be kept constantly to the eyes, and a little poured between the eyelids two or three times a day: —

Take of Acetate of Zinc,
And Acetate of Ceruse, of each - 4 grains.
Distilled Water, - - 6 ounces.
Mix.

For this species of inflammation of the eyes, a respectable surgeon recommends, in the Monthly Gazette of Health, a few drops of the following solution to be dropped within the eye-lids every night and morning: —

Take of Sulphate of Copper, - - 1 grain.
Distilled Water, - - - 4 ounces.

In some cases he increased the quantity of the sulphate of copper to three grains.

PREVENTION. — People subject to inflammatory attacks of the eyes or eye-lids, should pay particular attention to the state of the digestive organs, and on any symptom of indigestion, or determination of blood to the head, should immediately take the Purgative Pills (A), p. 117. The eyes should likewise be washed every morning with *cold* water, to which a little brandy may be added on the appearance of redness or fresh irritation; but the most effectual preventive is, an issue in the arm or nape of the neck.

High-seasoned dishes, strong wines, and spirituous liquors, should be avoided. The feet should be kept warm by the use of thick worsted socks.

OF INFLAMMATION OF THE INTESTINES. — SYMPTOMS. — This disease is distinguished by a fixed pain in the belly, which is increased by pressure, attended with the usual symptoms of fever, costiveness and vomiting. The pain is felt in different parts of the bowels, according to the seat of

the inflammation, and very often it spreads over the whole belly, and is felt more especially about the navel. The pulse is quick, hard, and small; the urine high-coloured; the abdominal muscles frequently contracted.

CAUSES. — It may be occasioned by external contusion; by acrid articles of various kinds taken into the stomach; frequently by very cold drink, swallowed when the body is warm; or cold applied to the lower extremities, or belly itself: it is sometimes produced by costiveness; and often supervenes in the progress of colic; or is also occasioned by the strangulation of a protruded portion of the intestines in a rupture, or what is commonly termed a broken belly.

TREATMENT. — Copious bleeding, the frequent exhibition of an emollient clyster of starch, fomentations, the warm vapour bath or sudatory, a large blister on the belly, small anodyne clysters, occasionally injected, are the most effectual remedies in the first stage of this violent disease. If vomiting be an attendant, great care must be taken not to aggravate it either by the *quantity* or *quality* of any thing thrown into the stomach.

Such is the nature of this complaint, that we cannot be too cautious either in administering medicines or diluents by the mouth; for the capacity of the intestinal canal is often so diminished, as to be sometimes nearly obliterated or shut up; and a quantity of any kind of liquid or aliment, however *simple* in itself, must, by *distending* the intestines, or being forced against the obstruction, necessarily increase the irritation and mischief. The propriety of administering aperient medicines is to be questioned, as the irritation they produce may aggravate the inflammation; the *frequent* use of emollient clysters will supersede their necessity, and at the same time act as a fomentation to the parts. Almond emulsion, with a little gum arabic dissolved in it, is the only medicine that can be admitted with safety. The solution of acetate of morphine may, in some cases, be employed with great advantage; but in others, it may prove as injurious: — clysterwise it is generally more efficacious than when given by the mouth. When the pain remits, and the *violence* of the symptoms abates, *mild* diluents may be allowed, as chicken broth, linseed tea, &c.; and if such liquors be retained without aggravating the symptoms, a little fresh castor oil may be given every three or four hours till it procure a passage.

If that state of the intestine be suspected to exist, technically termed volvulus or introsusception — that is, a preternatural *ingress* of one portion of the intestine into the other, or a reduplicature of the intestine — quicksilver, in the quantity of an ounce, should be given; and, as its effects are entirely mechanical,

the patient should be put in an erect posture (that it may the better press on the inverted part), and kept in that state till it has passed the stricture, which will require but a few minutes. He may then be replaced in bed, when the quicksilver will more easily pass through the intestinal canal.

In a late treatise on Inflammation of the Bowels, by Dr. E. Peart, calomel and opium are ordered in the first and every stage of this disease. The calomel to be continued at short intervals, and opium when requisite, till the disease is removed, even although forty, sixty, or more than one hundred grains of calomel be found necessary. I have frequently witnessed the beneficial effects of this practice.

When the inflammation is the effect of some acrid poison swallowed, it requires the same treatment as already recommended for poisons.

A late writer has published a few cases of inflammation of the intestines in which cold water, applied over the abdomen by means of napkins, succeeded in subduing the disease. This practice is too bold to adopt without the superintendance of an experienced practitioner.

The inner membrane of the stomach and intestines is subject to inflammation, similar to that termed St. Anthony's Fire, which is, therefore, named Erysipelatous or Erythematic inflammation of the intestines. In this species, a grain of calomel, with the same quantity of opium, administered every four hours, generally proves successful. Stimulants, as a weak infusion of ginger, have likewise proved very efficacious, by producing a secretion of mucus, in which the disease seems to terminate. Medicines of this class should not, however, be employed without the sanction of an *experienced* practitioner. Children are particularly subject to this species of inflammation of the intestines, and in them it is attended with obstinate looseness, and often proves fatal. The warm vapour bath, small doses of calomel, and the Cretaceous Mixture, with a diet of animal and vegetable jellies, as the hartshorn, isinglass, arrow-root, &c. are, in the latter cases, principally to be depended on.

DISTINCTION. — The great degree of fever, quickness of pulse, *constant* pain, and great heat, will distinguish this disease from colic.

INFLAMMATION OF THE THROAT. — This disease, generally termed Quinsy, occurs principally in spring and autumn, when vicissitudes of heat and cold are frequent. It affects especially the young and sanguine, and a disposition to it is often acquired by frequent attacks.

SYMPTOMS. — It commences with an unusual sense of tightness in the throat, particularly on swallowing, which is often

effected with difficulty and pain. On inspection, some tumefaction and redness of the fauces may be perceived, which shortly spreads over the tonsils, uvula, and soft palate, attended with a troublesome clamminess of the mouth, fever, head-ache, delirium, &c. In desperate cases, the tongue and tonsils are so much swollen as to prevent deglutition, and even so to affect respiration, that the patient is often obliged to be supported in an erect posture, to prevent suffocation. The inflammation generally attacks one tonsil first, which in a day or two it sometimes leaves and affects the other, and not unfrequently quits them both suddenly, and flies to the lungs.

Causes. — It is generally occasioned by the external application of cold air, particularly about the neck. Whatever violently stimulates the fauces, in a plethoric habit, especially, as acrid food, poisons, &c. may produce it.

Treatment. — As the inflammation, from the delicate structure of the parts, soon advances to suppuration, *active* means should be *speedily* employed to disperse it. For this purpose the patient should take a *full* dose of the Purgative Mixture (A), p. 113; and after its operation, the Saline Mixture (A or B), p. 114, with twenty drops of antimonial wine, at bed-time. The Discutient Gargle (A), p. 108, should be used frequently, and the Stimulating Liniment (B), p. 125, applied *externally*, which for *slight* cases will generally prove sufficient; but if the inflammation should so increase as to give a sensation of suffocation, the extraction of blood near the part by leeches, or from the jugular vein, and a blister under the chin, to reach nearly from one ear to the other, will also be necessary.

The diet should consist of gruel, arrow-root, and barley-water, acidulated with lemon juice.

If, notwithstanding these means, the inflammation advance to maturation, the gargle, aperient, and saline medicines, should be discontinued, and the patient allowed a little wine and beef-tea, till he be able to swallow more substantial food; and after the matter is evacuated, the Detergent Gargle, p. 109, should be employed, and three table-spoonsful of the following mixture taken three or four times a day: —

Take of Red-rose Leaves dried,	2 drachms.
Infuse in half a pint of boiling water till cold; then strain, and add,	
Diluted Vitriolic Acid,	1 drachm.
Compound Tincture of Rhatany Root, or Peruvian Bark,	½ ounce.

Mix.

If the patient should, at any period of the disease, be incapable of taking a sufficient quantity of food by the mouth, a clyster of starch or broth should be administered three or four

times a day, for the purpose of throwing nourishment into the system. (*See* NUTRIENT CLYSTER, p. 106).

INFLAMMATION OF THE LIVER.—SYMPTOMS.—Fever with tension and pain (sometimes pungent, but more frequently obtuse) in the region of the liver, a pain at the collar bone and at the top of the shoulder of the right side; much uneasiness in lying down on the left side: difficulty of breathing; a dry cough, vomiting, and hiccough.

Inflammation of the liver has generally been considered of two kinds; viz. *acute* and *chronic*.

CAUSES.—Besides the causes producing other inflammation, such as cold, external injury from contusion, a blow, &c. this disease may be occasioned by certain passions of the mind, by violent exercise, by intense summer heats, by long-continued intermittent and remittent fevers, and by various solid concretions in the substance of the liver. In warm climates, this viscus is more apt to be affected with inflammation than perhaps any other part of the body, probably from its size and numerous blood-vessels.

This disease, like other inflammations, may end in resolution, suppuration, gangrene, or scirrhus; but its termination in gangrene is a rare occurrence.

The disease seldom terminates speedily in death. In a few instances it has been observed to cease on the appearance of erysipelas, in some external part.

Before suppuration begins, adhesion generally takes place with some neighbouring part, as the diaphragm, stomach, intestines, &c. when the matter will be discharged by the different outlets with which this part is connected, as by coughing, vomiting, looseness, or by an abscess breaking outwardly; but when no adhesion is formed, the matter will be discharged into the cavity of the abdomen, in which case the abdomen will swell, and an effusion of serum occurring at the same time, the patient will be affected with the species of dropsy termed ascites.

On dissection, the liver is often found much enlarged, and hard to the touch; its colour of a deep purple, and its membranes more or less inflamed. Dissections have shown, that adhesion to the neighbouring parts often takes place, and that large abscesses, containing a considerable quantity of pus, are often found in its substance.

TREATMENT.—The same remedies as are recommended for pleurisy are necessary in acute inflammation of the liver, except the situation of the blister, which should in this case be applied over the region of the liver.

The symptoms of the chronic species, (generally termed a liver disease), to which Europeans are very liable on residing in

a tropical climate, are, on its first attack, pain of the right side, sometimes pungent, sometimes obtuse, extending upwards towards the shoulder, and occasioning tension of the right hypochondrium, with considerable fever and difficulty of lying on the left side.

With these symptoms are joined a strong hard pulse, dry cough, high-coloured urine, and often vomiting of a bilious matter. But the symptoms of this affection are frequently more obscure, and are confined rather to the common marks of stomach complaints, as flatulence, fulness of stomach, and frequent eructations. The appetite falls off, and an obscure fever prevails, with a slight evening exacerbation, inducing languor, want of sleep, and much oppression. Occasional uneasiness in the seat of the liver is experienced. In the progress of the malady, the countenance appears livid and sunk; and the eyes display a dull white, or yellowish hue. Under these symptoms the body becomes gradually emaciated, the region of the liver has a sense of fulness, and a slight swelling may be traced. But by this fulness the breathing is affected; and this symptom, which is attended with a hoarse dry cough, is particularly aggravated when the patient lies on the left side. In the end, dropsical symptoms, accompanied with jaundice, supervene; and under those complicated sufferings the patient is cut off. Sometimes an abscess opening externally, if it does not cure, at least prolongs the life of the sufferer. It is in the second stage of this malady, and when the symptoms are rather obscure, and chiefly referrible to the stomach, that mistakes of this complaint are apt to occur; and this is the more to be regretted, as no disease yields to remedies so readily in the beginning, as the liver disease of tropical climates. When it is incipient, and the appearances regularly and strongly marked, regimen, along with a full evacuation of the bowels, will complete the cure. This evacuation may be made with the Aperient Mixture (A) or (B), p. 111 and 112, and afterwards with purgatives combined with calomel, till every symptom be removed.

When obviated, a mild vegetable diet, and the constant use of water for drink, will be the best means to prevent a recurrence; which must be guarded against by the occasional use of laxatives, and also by the seasonable intervention of an emetic. If, however, the disease has passed this first stage, and does not appear to yield readily to this simple plan, then the more free use of mercurials is requisite; and friction has been considered as the best mode of employing them. (*See* CALOMEL.) But as the discharge by the intestines appears at all times to facilitate the cure, calomel will in this stage of the disease be the preferable remedy.

Some practitioners have unfortunately proceeded on the idea, that a mercurial course, conducted in the same manner as for the venereal disease, was all that was necessary to remove the obstruction, and ensure a cure. But as it is evident, on the contrary, that the discharge by the bowels, joined with the action of the mercurial remedy on the liver, forms the most successful means of cure, so no other preparation will be found to be equal to calomel. The secretions of the liver and bowels connected with it, are alone concerned, in a primary manner, in the treatment; and consequently, as the calomel excites their action by a powerful and continued operation, it is the most effectual remedy.

In the warmer climates, the extent to which mercurials may be carried before the system becomes affected, is surprising; at the same time that their influence on the salivary glands is here of less importance than in the venereal disease, insomuch, that though matter should form in the liver, the same treatment is equally applicable as in the first stages of the malady; no alteration ought to be made, unless when the matter of the abscess points, when it may be opened by a lancet.

Under the above course, a vegetable diet, consisting of the farinaceous articles, as sago, arrow-root, &c. should be strictly adhered to; and the beverage should exclude all spirituous and fermented liquors. — (*See* BILIOUS COMPLAINTS.)

OF INFLAMMATION OF THE LUNGS. — SYMPTOMS. — This disease commonly commences with rigours, which are soon succeeded by difficulty of breathing, cough, pain or stitches in the chest, particularly on inspiration or coughing, a sense of fulness in, and tightness across, the chest; great anxiety about the heart; restlessness; loss of appetite; the pulse quick, sometimes hard, and seldom strong or *regularly* full; the breath hot; the tongue covered with a yellowish mucus; and the urine turbid. The difficulty of breathing is most considerable on inspiration, and in a horizontal position; and in order to facilitate respiration, the shoulders and head are kept more or less elevated. In consequence of the obstruction of the free passage of blood through the lungs, the veins of the neck are distended, and the face swollen, with a dark red colour about the eyes and cheeks. The pain in the chest is generally aggravated by lying on the side affected, though sometimes the contrary happens, and very often the patient can lie only on the back.

CAUSES. — It is occasioned by the application of cold to the body, obstructing the natural perspiration of the skin, and thus producing a determination to the lungs, while, at the same time, the lungs themselves are exposed to the action of cold air. Suppression of an accustomed evacuation, repulsion of eruptions,

violent exercise, external injuries, and vehement exertions of the lungs, are often *exciting* causes of this disease.

TREATMENT. — The principal object in the treatment of this disease is to unload the vessels of the lungs, by bleeding, and such remedies as are calculated to produce a determination of blood to the surface of the body and extremities, which, on account of the importance and delicacy of structure of the seat of the inflammation, should be employed as *speedily* and *fully* as possible.

With this view, twelve or sixteen ounces of blood should be taken by a *large* orifice, from the arm, and repeated according to the strength of the patient and the violence of the symptoms*; a large blister should be applied to the side most affected, and if the patient should complain of pain in the head, pulsation, or drowsiness, one should likewise be applied to the nape of the neck, and even to the feet. A dose of the Purgative Mixture (A), p. 113, should be taken every two hours, till it operates, and afterwards the Antitussic Mixture (A), p. 111, according to the directions there specified. Ten drops of the tincture of foxglove may likewise be given two or three times a day, if the pulse should continue quick. The patient should be suffered to drink plentifully of the almond emulsion, or an infusion of linseed, acidulated with lemon-juice, which will be sufficient for his support till the symptoms are considerably abated, when he may be allowed a little arrow-root or tapioca jelly. If the skin should continue dry and hot, the body should be put into a warm bath, of about 98 degrees (Fahr.), or in the warm vapour bath, at about 110 degrees (Fahr.); for, in this disease, it is of the greatest importance to produce and keep up copious perspiration. After the inflammatory symptoms have entirely subsided, the decoction of the Iceland liverwort will prove an excellent restorative.

The structure of the lungs is so very delicate, that they will not sustain inflammation many hours without endangering the life of the patient, or laying the basis of consumption, particularly if the patient be of a scrofulous habit. The active remedies recommended above should therefore be employed as *speedily* as possible, in order to abate and disperse the inflammation, and not by degrees, as is too frequently the case with timid or inexperienced practitioners. In consequence of an in-

* If the constitution of the patient be naturally weak, the extraction of blood from the surface of the chest, by cupping, will often prove more serviceable than from a vein. If he be of a full habit, he should be bled freely; but if of a leucophlegmatic habit, or if he has injured his constitution by drinking, the effects of bleeding should be carefully watched, in order to determine the propriety of a repetition. The stage of the disease, and its debilitating effects on the constitution, should also be taken into consideration.

decisive practice, many lives fall a sacrifice to this disease that might have been saved, had active means been adopted in the first instance.

It is scarcely necessary to observe, that in case of inflammation of a part so essential to life as the lungs, the most able advice should be resorted to in the first instance, as the disease, in the course of a day or two, may so far advance as to resist the most active treatment.

OF THE ITCH.—SYMPTOMS.—This disease first appears in small pimples with watery heads, which itch violently when the part is warmed by the heat of the fire or bed. By friction the pimples are inflamed, and assume a peculiar redness, which distinguishes the disease. It usually appears about the wrist, fingers, arms, and thighs, but seldom on the head.

CAUSE.—The pimples are evidently produced by an animalcule, which is described to be of a whitish colour, and formed like a tortoise, having six feet, and a sharp head, with two sharp horns on its points; others, who have not taken the trouble of making a microscopic examination, assert, that it is produced by an ichorous serum, which, by irritating the small ramifications of the nerves under the cuticle, occasions the itching and heat. If this latter opinion were correct, it could not be communicated by the clothes.

CURE.—Sulphur is in general a poison for these animalcules, and more safe and expeditious than any other application. In the Antipsoric Ointment, p. 127, the unpleasant smell of this remedy is disguised. The part affected should be well anointed with it every night, till the eruption entirely disappears. The internal use of sulphur will, in all cases, assist its external application. The linen should be clean and often changed, and not worn again before it be well washed and bleached, so as to destroy the animalcules that may have lodged in it.

Dr. Gales, of Paris, in a work lately published on the cure of this disease, recommends sulphurous fumigation as more speedy and effectual than the usual methods of applying sulphur. The mode of applying this powerful remedy I have particularly described p. 224.

The decoction of white hellebore is by some preferred to sulphur, on account of being inodorous. It may be made in the following manner:

Take of White Hellebore Root, bruised, - - 4 ounces.
Boil in a quart of water to a pint and a half; then strain, and add,
Lavender-Water, - - - - 4 ounces;
with which the parts affected should be washed two or three times a-day.

A solution of the sulphuret of potass, in the proportion of a drachm to half a pint of rose-water, is much recommended by

Sir Arthur Clark as a lotion for the itch. It is certainly a much neater application than an ointment, and from the trials I have made with it, I am disposed to consider it more efficacious. (*See* ANTIPSORIC LOTION, p. 126.)

Mercurial applications are preferred by many practitioners; but they are neither so safe nor certain as sulphur, and may, under certain circumstances, prove very hurtful to the constitution. The advertised remedies for the itch are chiefly composed of arsenic, mercury, and lead.

OF JAUNDICE.—SYMPTOMS.—This disease generally comes on with listlessness, loss of appetite, drowsiness, depression of spirits, and generally costiveness, which are soon succeeded by a yellow appearance of the whites of the eyes, the nails of the fingers, and at length the whole surface of the body. The urine is highly tinged with bile, and deposits a yellow sediment, which imparts its colour to linen; the stools are of a light clay colour; a violent pain frequently extends from the right side to the pit of the stomach, which is considerably aggravated after meals: some are much disposed to sleep, and others to watchfulness.

CAUSES.—In this disease, the bile not passing through the biliary duct into the intestines, it is taken up by the absorbent vessels of the liver, and conveyed to the mass of blood, from whence it is separated by the kidneys, and passes off with the urine. The causes of obstruction in the natural channel are various, viz. biliary concretions, in which case it is attended with paroxysms of acute pain in the regions of the liver and stomach: another cause is, compression of the biliary duct by scirrhous tumours*, and sometimes the impregnated womb. It is often occasioned by spasmodic contraction of the biliary duct, in which case it is generally brought on by mental depression or uneasiness.†

TREATMENT.—The cure of this disease depends on the removal of the impediment to the free passage of the bile through the biliary duct; but before the accomplishment of this object is attempted, it is often necessary to palliate the most distressing

* Scirrhous enlargements of the viscera being generally the consequence of the abuse of spirituous liquors, drunkenness has been enumerated as one cause of this disease. "When jaundice appears," says a modern author, "it may be reckoned a proof of the patient's being a veteran worshipper at the shrine of Bacchus." The drunkard should be taught to look into a glass, that he might spy the changes in his countenance. The first stage would present him with redness of eyes, the second will exhibit the carbuncled nose, and the third an obstinate jaundice, which will probably terminate his wretched career.

† It is remarkable that this cause is often produced by jealousy and anger. Hoffman and Morgagni relate instances of the jaundice being repeatedly produced by mental commotions.

symptoms. Thus, if the patient be affected with a violent paroxysm of pain, we should endeavour to procure a suspension or mitigation, by the exhibition of twenty drops of liquid laudanum in a little peppermint-water, which should be repeated according to the violence of the pain.

When the obstruction is produced by spasms or biliary concretions, and the patient is of a plethoric habit, the loss of blood, by relaxing the parts, will afford considerable relief.

When it arises from concretions lodged in the biliary duct, the indication of cure is, to produce a dissolution of the concretion, or to facilitate its passage to the intestines, by relaxing and agitating means. The solution of biliary concretions is extremely difficult even out of the body, and of course must be much more so when lodged in the gall-bladder or duct. Dr. John Camplin asserts, that he has found ether to answer this purpose, and I have certainly witnessed its good effects in several cases; but whether from a solvent power, as the doctor supposes, or as an anti-spasmodic, I cannot take upon myself to determine; the latter is the most probable.

For the purpose of relaxing the biliary duct, the solution of the acetate of morphine or laudanum, the loss of blood, the warm bath, and nauseating doses of the Tartarised Antimony Wine, are the most powerful remedies; and the agitation of the parts, which will afterwards accelerate its expulsion into the intestines, is best effected by the ipecacuan powder, the Aperient Pill, p. 89, and exercise.

When the disease is produced by the *pressure* of a scirrhous tumour *, the remedies to be depended on are the hemlock, with mercury (in the following proportion), and distilled water, recommended for the cure of cancer: —

Take of Powdered Hemlock, recently dried, - 1 drachm.
Prepared Calomel, - - 30 grains.
Conserve of Hips, sufficient quantity to form a mass: to be divided into thirty pills. One to be taken twice a day, with three table-spoonsful of the following mixture:

Take of Infusion of Columbo, - - 6 ounces.
Prepared Soda, - - 2 drachms.
Compound Tincture of Cardamom Seeds, ½ ounce.
Mix.

If the bowels should be confined during the use of these medicines, the Aperient Pills, p. 117, may be taken as there directed.

The diet should be regulated according to the state of the constitution: in cases of organic disease, the strength should be

* Scirrhosity of the pancreas, by compressing the biliary duct, is not an unfrequent cause of jaundice.

supported; but if it be produced by biliary concretions, the diet should be low, particularly if the patient be of a plethoric or inflammatory habit. But as vegetables are apt to generate a troublesome degree of flatulence and acidity in the stomach, the patient should be allowed broth, and a little animal food in substance.

In all cases of jaundice, it is good practice to excite a degree of irritation of the skin over the region of the liver, by the application of the Rubefacient Ointment, p. 128.

Infants soon after birth are very subject to attacks of jaundice, from viscid mucus obstructing the gall-duct; for the removal of which, a gentle emetic of ipecacuan powder (about three or four grains) is generally sufficient; if it should yield to this remedy, a gentle dose of calomel and rhubarb may be given twice a week, and the solution of salt of wormwood two or three times a day, as directed, p. 70.

People subject to this disease from gall-stones, should be very particular in guarding against indigestion, and the consequent production of an acid. — (*See* PREVENTION OF INDIGESTION, p. 111.)

Practical Remarks. — The yellowness of the skin is produced by bile taken up into the circulation, in consequence of an obstruction in the biliary duct, from spasms, from slime, biliary concretion, or the pressure of a diseased part. The treatment must be regulated by the state of the system with respect to fulness or depletion. When a proper state of system is produced, if the cause be spasms, ether, opium, and the warm bath will prove beneficial. When the cause is slime, the occasional exhibition of a mercurial purgative and an emetic will be necessary; when it is the consequence of biliary concretion, opium, with the warm vapour bath to relax the parts, is proper; and when the spleen or liver is diseased, mercury is chiefly to be depended upon, conjoined with such medicines as the state of the constitution may indicate. In all cases, the irritation produced by the Rubefacient Ointment will tend to prevent mischief.

OF KING'S EVIL, OR SCROFULA. — The Latins termed this disease scrofula, from *scrofa*, a hog, because it has been observed in the swine. It is named the King's Evil, in consequence of Edward the Confessor, and other succeeding kings, both of England * and France, pretending to cure it by the touch.

In subjects of a delicate structure the absorbent system is

* The last that practised this delusion was Queen Anne. In the London Gazette of the year 1707, is inserted a proclamation inviting her scrofulous subjects to the royal touch.

often extremely tender, which probably constitutes what is termed the scrofulous habit. The absorbent vessels not acting in unison with the secerning extremities of arteries in different parts of the body, indolent tumours are formed. This state of the absorbent system is often transmitted from parents to their children.

In scrofulous subjects, the characters of the brain at an early period are strongly marked; and its intellectual functions are performed during youth with unusual vigour.

The different opinions that have been broached respecting scrofula, as produced by a specific poison, or connected with the venereal disease, small-pox, &c., are too absurd to notice: nor is the idea of its being a disease of debility less erroneous; for its victims are equally the robust as the weak; it appears in the sanguineous as well as the leucophlegmatic temperament.

The structural mischief generally occurs in the glands of the neck, in the ligaments of the joints, and even in the substance of the bones. The glands of the mesentery are also often tumefied, and deposits take place in the substance of the lungs, so as to lay the foundation of scrofulous consumption.

In a subject of a delicate or irritable lymphatic system, or what is termed the scrofulous habit, slight accidents, especially sprains, often producing considerable mischief, they should be attended to in the first instance.

TREATMENT. — Numerous specifics for scrofula have been recommended, by the ancient and modern writers; but none have supported their reputation. When the derangement takes place in a part of little importance in the body, we must attend to the general health, in doing which we must keep in view the state of the nervous system; for the lymphatic system, which is the seat of this disease, derives its power of action from the brain; and whatever tends to increase the excitability of the nerves will aggravate it. For the improvement of the general health, the Antiscrofulous Mixture (A or B), p. 111, may be taken.

To invigorate and strengthen the absorbent system, cold bathing and the sea air have been found very beneficial; but when the mischief is situated in the lungs, the former cannot be employed with safety.

Scrofula, like every other disease, has its stages. In the first stage it is decidedly a disease of *increased* action. The local affections are inflammatory, and they have a peculiar character, probably in consequence of being confined to the lymphatic glands and vessels. After suppuration has taken place, or the disease has arrived to its last stage, the circulation generally becomes languid, the skin pale, and the stomach, of course, par-

takes of the general debility of the body; hence powerful and indeed *stimulating* tonics are often necessary.

Costiveness, to which scrofulous subjects are very liable, being a common precursor of disorder of the lymphatic system, or of structural mischief either in the lungs, mesenteric glands, joints, or the glands of the neck, it may be considered so far an exciting cause of local mischief, that, had it been obviated, it would not have come into action. An occasional use of an aperient medicine is not only necessary, as a *preventive* of local mischief in a scrofulous subject, but even when it has come into action it is no less important to keep up a regular alvine discharge, in order to give the topical and constitutional remedies a fair trial, which are supposed to act specifically on the disease; and it is probably to a neglect of this essential part of treatment, that remedies, which have been highly extolled by some surgeons as correctors of scrofula, have failed in the practice of others. Iodine has, within the last four years, been much recommended by several respectable surgeons of France, Germany, and England: and from the numerous cases of scrofula which have been published in the Gazette of Health and other journals, I am much disposed to think that it possesses an antiscrofulous property; but it has been observed, that if the bowels be not kept in a proper state, the article is very apt to disorder the stomach and head, and even to excite slight fever, and considerable irritation in the salivary glands; and these effects have induced some physicians, from ignorance of the cause, to abandon its use.

The best aperient medicine for obviating costiveness in scrofulous subjects is the alcaline extract of jalap, because it does not disturb either the process of chymification in the stomach, nor of chylification in the duodenum, nor prevent absorption of the chyle for the due nourishment of the body, by hurrying it through the small intestines; its peculiar aperient effects arising from its action on the internal membrane of the colon, by increasing its fæcal secretion. — (*See* APERIENT PILLS, p. 117, and ALCALINE EXTRACT OF JALAP, p. 165.)

Of all the *constitutional* remedies, the only one worthy a trial is iodine. The best form for exhibiting this article is the tincture, of which from twenty to thirty drops may be taken two or three times a day, in a large wine-glass or small tea-cupful of the decoction of marshmallow root or soapwort, p. 132. If the powers of the system have decreased, the Peruvian bark may be boiled with the marshmallow root or soapwort, in the proportion of half an ounce to a pint of the strained decoction. The late Sir Walter Farquhar, and the late Dr. Cheston, of Gloucester, entertained a very high opinion of the antiscrofulous property of the Malvern water; and the late Dr. Baillie, in the Memoran-

dums which he left unpublished, states, that he found this water to prove very beneficial in scrofula.

Mercury in small doses (as the blue pill in the quantity of two grains, with two grains of the extract of hemlock, taken at bed-time for the course of a week or ten days), generally proves very beneficial in every stage of scrofula; but when it irritates the gums, or excites mercurial fever, the scrofulous affection generally advances rapidly. With the late Mr. Cam of Hereford, and the late Dr. Cheston of Gloucester, a solution of the oxy-muriate of mercury was a very favourite medicine; and in many bad cases of scrofulous suppurations, and scrofulous affections of bones, I have witnessed its good effects. Their modes of giving this medicine are detailed in a late publication, entitled the "New Medico-Chirurgical Pharmacopœia."

As a topical application to neglected scrofulous tumours, either of glands or joints, the following embrocation may be used twice a day, either by rubbing the part gently with it, by means of some fine soft flannel, or by applying flannel moistened with it over the part: —

Take of Iodine,	- - -	20 grains.
Rectified Oil of Amber,	-	4 drachms.
Rectified Spirits,	- - -	2 ounces.

Mix.

On adding the rectified oil of amber to the iodine, a combustion takes place; and when this is finished, the spirit should be added.

The Discutient Ointment (B), p. 128, I have found efficacious in dispersing scrofulous tumours, during the use of the tincture of iodine, &c.

As auxiliaries to medicine and diet, the most powerful are sea-air and sea-bathing. The diet should be adapted to the state of the general health, and particularly to that of the sanguiferous system. — (*See* DIET, p. 200.)

Mr. Abernethy, in his work on the constitutional treatment of local diseases, says, that he has remarked, in many instances, that diseases of the absorbent glands, such as are usually denominated scrofulous, occurring in adults, have apparently originated from the disorder of the digestive organs. In several cases the local disease was of long duration, and had become worse rather than better under various plans of medical treatment; yet it amended regularly, and sometimes even quickly, in proportion as the state of the digestive organs was corrected. I need not, says he, detail any cases on this occasion, since every surgeon must know them familiarly. The patients are commonly sent to the sea-side, or into the country, where enlarged glands subside, and those which

have suppurated and ulcerated heal; and the local disease recovers in proportion as the health in general is amended.

There are cases of scrofulous diseases occurring suddenly, and in various parts of the body at the same time, which seem to originate in that state of the constitution which is occasioned by disorder of the digestive organs. Mr. A. has chiefly observed these cases in children, and they have followed some violent febrile affection. In two cases, which he has particularly mentioned, the small-pox was the antecedent disease. I have already stated, says Mr. A., that when the health has been considerably disordered by some violent disease, the digestive organs may become subsequently affected, and that this disorder proves a cause of many secondary diseases.

The two cases to which Mr. Abernethy alludes are so very similar, that it is only necessary to give one, to illustrate the great advantages of his simple mode of treatment.

"A child of two years old had the small-pox, from which he did not seem to recover, but, on the contrary, fell into a very bad state of health. The absorbent glands on the right side of the neck became enlarged in succession, so as to form altogether a very considerable tumour, which extended down to the collar-bone. The axillary glands then became affected in the same manner; the swelling was unusually great, and seemed to extend under the pectoral muscle, elevating it, and forming by this means a continuation of tumour with the glands of the neck. These swellings had partially suppurated, and had broken in two places, viz. in the neck, and about the margin of the pectoral muscle: but no relief followed; on the contrary, the mass of disease seemed to be rapidly increasing. The child was bowed forwards, so that the spine was much curved in the loins; the left leg appeared paralytic, and a swelling was perceived in the abdomen, which I could not but ascribe to an enlargement of the external iliac glands. The child was extremely emaciated, his skin felt hot and dry, his tongue was covered with a brown fur, and the stools were black, and highly offensive. As there was no expectation that he could survive this desperate state, those medicines only were prescribed that seemed likely to correct the state of the digestive organs; such as occasional doses of calomel and rhubarb. A strict attention to diet was also recommended. Under this treatment the stools gradually became natural, and the tongue clean. The disease seemed to stop immediately. As the health was restored, the swellings rapidly subsided, and the child became one of the healthiest and stoutest of the family."

In the second case, the joints, as well as many glands, were considerably enlarged; the latter so much so, that Mr. Aber-

nethy observes, "had I seen either joint, as a single case of disease, I should have said that it would leave the child a cripple." The same simple treatment also succeeded in the other case. To the last case he has subjoined the following remarks.

"I have heard it remarked by surgeons of great experience, that patients often recover when many scrofulous diseases appear at the same time; although some of them may be so considerable, that they would seem to warrant amputation had they appeared singly. The cases which I have related afford a most clear and satisfactory account of the mode of recovery. General irritation and weakness bring on diseases, to which perhaps a predisposition may exist in several parts of the body: these cease when their exciting cause is removed.

"Of late, indeed, I have been equally surprised and rejoiced to see swellings of the absorbent glands in children readily dispersed by that medical attention to correct errors in the functions of the digestive organs, which I have described. Some of these swellings came on rapidly, and some slowly; but these were so large, and so much inflamed, that if any person had formerly told me they might be dispersed by such measures, I should have thought the assertion an absolute absurdity, from its direct contradiction to my former experience."

The popular remedies, the juice of goose-grass, endive, coltsfoot, &c., taken during the first or inflammatory stage of scrofula, frequently prove beneficial; but after the powers of the constitution have been reduced by suppurations, they prove injurious by disordering the stomach. It is worthy of remark, that most of the remedies which have been found beneficial in scrofula, as the subcarbonate of soda, solution of pure potass, fox-glove, the Malvern water, infusion of parsley root, &c. &c. are diuretic, and that they always prove most efficacious where they promote the secretion of the kidneys. The foul part of the blood being separated by the kidneys, they may have a beneficial effect on the system, by increasing their action. There is so close a sympathy between the kidneys and the whole lymphatic system (the principal seat of scrofula), that diuretic medicines may operate advantageously, by keeping up the important functions of the latter. — (*See* IODINE, 163; ALTERATIVES, p. 3; DERIVATIVES, p. 23; and DIURETICS, p. 25.) — The active ingredients of advertised remedies for scrofula, are arsenic, and corrosive sublimate of mercury.

OF LEPROSY. — The true lepra, or leprosy, very rarely occurs in this country. To this head, however, is referred a great variety of cutaneous affections, which, for the most part, yield to the remedies recommended for cutaneous diseases, page 364. For the dry, scaly, chronic inflammation of the

skin, generally termed leprosy, the Discutient Plaster (B), page 130, spread on black silk, is a very efficacious remedy. — (*See* OIL OF WALNUTS, p. 365; WALNUT OIL SOAP, p. 367; and a new remedy for LEPRA, &c. p. x.

OF LUMBAGO. — When rheumatism attacks the loins, it is thus denominated. In cases of continued violent pains in the loins, medical advice should always be taken; for should inflammation be here mistaken for rheumatism, and treated by *stimulating* medicines, the consequence might be a formation of matter, constituting the disease termed *Lumbar abscess*, which generally terminates fatally. Advertised medicines for lumbago have certainly been productive of much mischief in this respect.

When the case is doubtful, the warm water or warm vapour bath, a blister over the part, and the Diaphoretic Draught, p. 106, may be safely employed. Lumbago requires the same general remedies and topical applications as recommended for rheumatism. — (*See* AMMONIATED TINCTURE OF COLCHICUM SEEDS, p. 148.)

OF MEASLES. — This disease is highly infectious, and the constitution that has been once under its influence, is not liable to a second attack.

SYMPTOMS. — It generally begins with shiverings, succeeded by heat; a severe head-ache in adults, and heaviness in children; a slight inflammation and considerable heat in the eyes, attended with swelling of the eyelids, a defluxion of acrid tears, an inability to bear the light, frequent sneezing, and discharge from the nostrils; sooner or later a fever comes on, with a cough, a sense of tightness across the chest, nausea, and vomiting. About the fourth, and sometimes the fifth day, red spots, resembling flea-bites, begin to appear on the forehead, and other parts of the face, and successively on the lower parts of the body, which increase, run together, and form large red spots of different figures. The spots on the face sometimes appear a little prominent to the touch; but on other parts, do not rise higher than the surface of the skin. On the third day of the eruption, the vivid redness is changed to a brownish red, and in a day or two more entirely disappears, and is succeeded by a mealy scaling of the scarf skin, and sometimes a difficulty of breathing, dry cough, pains in the chest, and fever; which, in scrofulous habits, often terminate in consumption.

TREATMENT. — If the inflammatory symptoms do not run high, the occasional use of the Purgative Mixture (A), p. 113, and fifteen or twenty drops of ipecacuan wine at bed-time, a low diet, and a warm room, will be sufficient. If the fever and affection of the lungs be considerable, the loss of blood, a blister over the breast-bone, and the Antitussic Mixture (A), p. 111, will likewise be absolutely necessary, and should not be delayed.

The almond emulsion, linseed tea, or the compound barley-water, as directed page 146, should be taken freely. If, after these means, the cough, difficulty of breathing, and pain in the chest, should continue, it will be advisable to apply another blister between the shoulders, or two or three leeches to each side of the chest. If looseness supervene, it should not be checked, unless it be violent, and even in that case not suddenly. Five grains of rhubarb, with two of ipecacuan powder, will in general, for this purpose, be sufficient. After the spots have disappeared, the patient should not be too hastily exposed to a cold air.

The diet should be low in proportion to the degree of fever. The Almond Emulsion, p. 145, or Compound Barley-water, page 145, and vegetable jellies, as arrow-root, tapioca, sago, &c. will, in general, be sufficient, till the feverish symptoms have nearly subsided.

When the eruption recedes, blisters to the chest, the warm vapour bath or sudatory (p. 172), and a gentle emetic of ipecacuan powder, are the most powerful remedies that can be employed for its re-expulsion, and if this should not succeed, the Rubefacient Ointment, p. 128, should be extensively and freely used over the chest.—(*See* DERIVATIVES, p. 23.)—Recession of the eruption is so serious an occurrence, that no time should be lost in calling in the aid of an experienced practitioner.

If much debility of the system should come on towards the end of the disease, and particularly if purple or black spots appear, the strength of the patient should be supported with cordials, beef tea, and animal jellies, in order to assist nature in effecting a favourable termination. With this view, the rhatany root or Peruvian bark will also be proper, which may be given in the following form:—

Take of Infusion of Rhatany Root, or the Decoction of Bark,	6 ounces.
Extract of Liquorice, - - - - -	1 drachm.
Dilute Sulphuric Acid, - - - - -	2 drachms.
Compound Tincture of Rhatany Root, - -	½ ounce.

Mix.—From a dessert to two table-spoonsful to be taken three or four times a day, according to the age of the patient and urgency of symptoms.

Yest, on account of the quantity of fixed air it contains, has been employed in this case, for the purpose of counteracting a supposed tendency to putrescence in the system. In some instances it has been administered with success, in the dose of a dessert or table-spoonful four times a day; but in the majority of cases I believe it has proved hurtful, by bringing on purging. If such an effect should follow its use, two or three drops of laudanum may be given with each dose. If the patient should be afflicted with violent purging, it should either be checked or moderated by the Astringent Mixture (B), p. 112. The propriety of restraining purging must, in a great measure, depend

on the appearance of the fæces; for if they be dark and offensive, and the strength of the patient not reduced by the evacuations, they may be considered of a critical nature, and should rather be encouraged than diminished: but to determine a point on which the life of the patient probably depends, the opinion of an experienced practitioner should be resorted to.

After the termination of the disease, there is frequently an inflammatory disposition remaining, which should be removed by gentle doses of the Basilic Powder, as directed, p. 85. If cough should, notwithstanding, come on, a blister to the chest, and the Antitussic Mixture (A), p. 111, will also be necessary.

Attempts have been made to communicate the measles by inoculation; but I do not believe it ever succeeded.

DISTINCTION. — On the *first* attack of measles, it is often difficult to distinguish it from common catarrh; in a day or two, however, the violence of the symptoms evince the nature of the disease. It may be distinguished from other eruptions by the *cough*, *watering of the eyes*, *sneezing*, *hoarseness*, *difficulty of breathing*, and *drowsiness*, which precede the eruption.

Practical Remarks. — Measles is a disease produced by a specific contagion, and runs a certain course. The object of practice is, in the first instance, to reduce the system by purgatives; and if the system be plethoric, by bleeding; and to keep up perspiration. As the lungs generally suffer more than any part of the body in this disease, cough should be quieted by an anodyne mixture, and by a blister. In case of great debility, and symptoms of typhus fever coming on, the strength of the system should be supported; and if the eruption recede, the warm vapour or sudatory, blisters, and sudorific medicines, are necessary. After the termination of the disease, the use of a purgative medicine is necessary to take off the inflammatory state of the system which generally follows it, provided the strength of the patient will admit of it; and if the system be considerably reduced, a mild tonic medicine will be proper.

OF MELANCHOLY. — Melancholy is a mild species of insanity, or rather incipient insanity, so nearly allied to hypochondriacism, as to require a similar mode of treatment. Indeed, it is very difficult in all cases to distinguish the hypochondriac affection from melancholy, the same temperament being common to both. Hypochondriacism is generally attended with symptoms of indigestion; and though there be at the same time an anxious melancholic fear arising from the feeling of these symptoms, yet while this fear is only a mistaken judgment, with respect to the state of the person's own *health*, and to the danger to be from thence apprehended, the disease may still be considered the hypochondriac affection, and distinct from melancholy; when an

anxious fear and *despondency* arise from mistaken judgment, with respect to *other* circumstances than those of health, and more especially when the person is at the same time *without any symptom of indigestion*, it constitutes the disease strictly named melancholy; but as a melancholic temperament *may* induce a torpor and indolence in the action of the stomach, so it generally produces some symptoms of indigestion, and hence there may be some difficulty in distinguishing such a case from the hypochondriac affection. When the characters of the temperament are strongly marked, and more particularly when the false imagination turns upon other subjects than that of health, or when, though relative to the person's own body, it is of a *groundless* and *absurd* kind, then, notwithstanding the appearance of some symptoms of indigestion, the case is still to be considered as that of melancholy, rather than the hypochondriac affection: these distinctions, however, bear no reference to any difference of treatment.

The distinguishing character of this disorder, is an attachment of the mind to *one* object, concerning which the reason is defective, and perfect with regard to other subjects. In its treatment, as in hypochondriacism, there is great scope for the management of the mind and passions. The chief point is to divert the mind from accustomed pursuits, and to introduce *variety* of matter, upon which it may exercise itself. This, however, requires the greatest caution and delicacy in the execution. Most melancholic persons are jealous of being esteemed as such, and have generally a great opinion of their own wisdom and sagacity, and, of course, are apt to hold very cheap the common amusements of life, especially those connected with social intercourse and company, being inclined to think themselves neglected and despised by the world.

Melancholy is distinguished from mania by being confined to a few objects or trains of ideas, whereas in mania it is general. Some ancient writers employed the term melancholy to signify insanity accompanied with gloom or despondency, without any attention to its being partial or general.

Dr. Good has noticed four varieties of melancholy, viz. gloom, restlessness, mischievousness, and self-complacency, all which are excited by the same causes, and owe their difference to peculiarity or even the natural dispositions of the mind. Fracastorio notices varieties from prevailing temperament. The *phlegmatic*, says he, are heavy; the *sanguineous* or *plethoric*, lively, cheerful, merry, but not witty: the *choleric*, are in rapid and perpetual motion, impatient of dwelling on any subject. An acuteness of wit belongs to most of the varieties, but not to all; and hence Diocles, in opposing Galen for holding, after Hippocrates, that

oom and terror are distinguishing signs of melancholy, observes: Upon serious consideration, I find some patients have nothing these qualities, and others that exhibit every diversity of ɜling; for some are sad without being timid, others timid with-ıt being sad; some are neither, and some both. Spurzheim, e phrenologist, has noticed another curious variety, to show at the mental faculties are double, and that each side of the ain contains a distinct set. Tiedman," says he, "relates the ample of one Moser, who was insane on one side of the brain, ıd who observed his insanity with the other." ! ! ! Dr. Gall ates, that he attended a minister who had a similar disease for ree years, and that he heard constantly for that period, on his ft side, reproaches, &c., and turned his head to that side in der to look at the persons. With his *right* side, says the octor, he commonly judged of the madness of his *left* side. ong after his left side was cured, if he happened to be angry, if he had drank more than he was accustomed to do, he ob-rved in his left side a tendency to his former alienation. Ac-ɔrding to this theory, if a man exercises only one side of his ain, he will probably in some respect act foolishly; and on re-ction, *i. e.* on bringing both sides into consultation, or when ıe side which generally acts calls in the aid of the other side, ɜ will discover his error. If this be really a fact, it satisfactorily counts for the ideas some religiously insane people have had being visited by a spirit, and of receiving communications from ıe Almighty. By this theory we may also account for dreams, which the most ridiculous nonsense does not appear incon-stent or irrational, by the disordered side of the brain remaining wake whilst the healthy side sleeps ! !

The ancients considered all the varieties of melancholy to be ıore or less dependant on the prevalence of *black* bile in the ıtestinal canal; and they accordingly prescribed purgative medi-nes, which they supposed to possess some peculiar property of ırrying it off, and of correcting the biliary secretion. Their vourite remedy, for these purposes, was the black hellebore ɔot, the powder of which they administered in the dose of twenty thirty grains, once or twice a week. It is worthy of notice, ıat this article, which, in some constitutions, acts powerfully as purgative, and in others scarcely produces any effect, always ccasions very dark motions, which are more or less followed in ervous subjects by serenity of mind. Dr. Mead, who gave the ktract of it an extensive trial, speaks very highly of it as a tran-uillising purgative, and a deobstruent.

It is worthy of remark, that in most disorders or diseases of ıe brain of increased excitement, the fæces are more or less dark nd offensive; and in cases of melancholy and mania, they are

often nearly black: and in many remarkable cases of copious evacuations of black offensive fæces, dissection has proved that the colour was not produced by the bile; it being confined to the fæces in the colon, the contents of the upper intestines being of their natural colour, and the bile in the gall bladder and duodenum perfectly healthy. I have met with melancholic and very nervous subjects, who have stated that they were greatly relieved by dark motions, and particularly when accompanied with copious discharge of gas downwards. The dark-coloured fæces, and the hydrogen gas, were probably secretions of the glands of the inner membrane of the colon, which relieved the brain and nervous system. As different purgative medicines operate on different parts of the intestinal canal, and as they all produce fæces of different appearances, it is not unreasonable to suppose that some do produce such a secretion of fæcal matter from the inner membrane of the colon as may act more beneficially in affections of the brain and general nervous system, or in diseases of the mind. From the testimonies of the ancients, and from the results of a few trials in cases of melancholy, I am inclined to entertain a high opinion of the black hellebore root, as a cerebral and visceral purgative, in cases of melancholy, and in many nervous affections.

The extract of the recent root, made by evaporating a saturated tincture, with an alcali in a water bather, as directed for the alcaline extract of jalap, is certainly the best preparation of it. The dose is from one to fifteen grains, made into pills with a little ginger powder, or it may be mixed with the alcaline extract of jalap and ginger powder, in the following proportions: —

Take of Alcaline extract of Black Hellebore Root,
Alcaline extract of Jalap, of each - ½ drachm.
Ginger Powder, - - - - 10 grains.
Mix well together, and divide into fifteen pills; three of which may be taken once or twice a week.

If the bowels should not be sufficiently relieved during the intermediate days, five or eight grains of the alcaline extract of jalap (in two pills) may be taken every night.

The treatment recommended for regulating the bowels under the head of Nervous Diseases, p. 451, and the observations on the benefit of amusing exercise, application of cold water to the head, the use of flannel socks, moderate diet, &c., are applicable to constipation in a melancholic subject.

Van Swieten recommends travelling as best calculated for the cure of such patients, by introducing a gradual yet interesting variety of objects and subjects of attention, which are the more pleasing, as they have not the appearance of being *intentional*.

The purpose of travelling, also (to those whose situation and circumstances admit of it), may be varied according to the disposition of the patient. This esteemed author relates, from his own knowledge, that several literary persons who were thus affected, would by no means be persuaded to go to any watering-places for relief, which they thought would confirm the opinion of the world concerning their disorder, but were easily induced to travel for the purpose of viewing several libraries and resorts of learned persons; and the varieties of attention thereby produced, had the best effects in working a cure. He also recommends to endeavour to excite such passions as are of an *opposite* nature to those that have prevailed during the course of the disorder. Thus the timid are to be supported with such arguments and discourse as may tend to rouse the courage and resolution; the gloomy are to be cheered with merriment and pleasure; and the violent and passionate to be restrained by fear. Even shame, observes Dr. Falconer, may be sometimes used successfully in preventing the consequences at least of melancholy. Plutarch relates, that the virgins of Miletus were seized with an epidemic madness, that prompted them to destroy themselves: which was in vain attempted to be prevented, until it was ordered that the bodies of those who thus put an end to their lives should be dragged naked through the streets: shame here proved a more powerful motive than the sense of duty, or any of the social affections.

It is generally found conducive to the cure, not to contradict *too peremptorily* the ideas and opinions of the patient. Opposition, if *too direct*, serves only to irritate the temper, and to confirm erroneous opinions. Such a degree of compliance as expresses only a *moderate* assent often succeeds. When the imagination is not inflamed by opposition, it often corrects itself. Sometimes, indeed, when the senses are *violently* depraved, it may be necessary to feign a more entire acquiescence with the opinion of the melancholy person. The introduction of sports and amusements, and such employments as consist of moderate exercise of the faculties, are likewise proper. — (*See* TREATMENT OF THE HYPOCHONDRIAC PASSION.) — Cœlius Aurelianus recommends, for this purpose, that *literary* people should be amused with *philosophical* questions; that the *farmer* should be entertained with discourses on *agriculture*, and the *sailor* with *naval* affairs. Others, he says, may divert themselves with games of chance. Music, for those who have a taste and ear for it, may, perhaps, be a powerful remedy, and as such is mentioned by Celsus and other writers.

The observations made on the salutary influence of the true

Christian religion on the mind, under the treatment of *Hypochondriacism*, equally apply to melancholy.

OF MENSTRUATION. — Menstruation is a natural secretion, of a red colour, from the womb, so named from its occurring once in the course of a month. This periodical discharge appears to be for the purpose of keeping up sanguification, or the making of blood in the body, and a determination thereof to the womb, for the important purpose of gestation.

In consequence of its not appearing at a proper period of life, of irregularity after it has taken place, and of its being excessive, as well as at the period of its cessation, many derangements in the system occur, all of which I shall consider under this head.

The interruption of the menstrual secretion may be considered of two kinds; — the one when it does not begin to flow at that period of life in which it usually appears, which is termed *Chlorosis*, or Green-sickness; and the other when, after it has repeatedly taken place for some time, it does, from other causes than conception, cease to return at the usual periods, which I shall consider under the head of Suppression of the Menstrual Secretion. And first,

GREEN-SICKNESS (CHLOROSIS). — The non-performance of the periodical office of the uterus, at the period of life when the secretion is necessary for health, arises from the same cause as the costiveness, which is an attendant on it, viz. sluggishness; but if the costiveness had been obviated by exercise, and the use of an aperient diet or medicine, as recommended for constitutional constipation, p. 330, a proper circulation of blood and degree of nervous energy would have been kept up throughout the abdominal viscera, that the uterus would have performed its periodical duty, when the state of sympathies and other changes were established. In this country, the uterus commences its periodical secretion from the age of fourteen to eighteen years; but in tropical climates it is common for it to take place at the age of ten; and I have often met with instances in this country of its occurring about the same period; but such cases are, for the most part, the consequences of a plethoric state of the viscera of the abdomen, and are unattended with the appearances of puberty and maturity of mind, which characterise females at the same age in tropical climates: it is, indeed, at that early period, in this country, more a symptom of a disordered uterus than of health, and often ceases after regularly recurring for twelve months; and the female, instead of suffering from its cessation, actually improves in her general health; and when she has arrived to puberty, a proper secretion of the uterus generally takes place. The period of puberty in females varying from the age

of fourteen to eighteen, and in some to twenty-one, the suspension of the uterine secretion, even at the age of twenty-two or twenty-four, is not to be considered a case of *morbid* retention, unless the constitution evidently suffers from a want of it. If a female, at the age of from fifteen to twenty-two years, with appearances of maturity of body and mind, becomes affected with irregular circulation of the blood, sometimes taking place in excess to the head, occasioning head-ache, confusion of mind, depression of spirits, loss of appetite, &c., — or to the lungs, &c., producing difficulty of breathing, cough, palpitation of the heart, — there can be no doubt that the general health is suffering from the uterus not performing its monthly office; and, if the bowels be in a costive state, that the retention arises from a want of a proper determination of blood to it: and if means be not adopted to invigorate the nerves of the abdominal viscera, so as to promote the circulation through them, and direct it to the uterus, irreparable organic mischief will probably take place either in the chest or brain, a very common sequel in scrofulous subjects.

The digestive organs in such cases being generally disordered, and the appetite often morbid, it is always proper to administer an aperient in conjunction with a stomachic medicine, although the lungs may be in a state of irritation approximating inflammatory excitement; and the object of prescribing an aperient not being only to increase the peristaltic motion of the intestines, but to promote the circulation in the viscera, a stimulating one should be employed, such as the extract of aloes. The following composition I have found most beneficial:—

Take of Extract of Fumitory,
Extract of Aloes (socotrine), of each, 1 drachm.
Subcarbonate of Iron,
Subcarbonate of Soda, dried, of each 1 scruple.
Essential Oil of Rue, - - 10 drops.
Mix well together, and divide into forty pills.

One, two, or three to be taken two or three times a day (with a wine-glassful of infusion of buchu leaves *), so as to produce one alvine evacuation daily. If the bowels have been obstinately costive, it will be advisable to empty them by an active dose of the cathartic extract (fifteen grains in three pills), and the Purgative Clyster, p. 103 (if necessary); after which the above stomachic aperient pills will probably keep them in a regular state. This composition never fails to improve the general health, if the lungs and brain have not sustained serious mischief; and, notwithstanding some of the ingredients are stimulating, it

* The infusion of buchu leaves, by stimulating the kidneys, will promote the object of the pills.

generally allays the morbid irritation of the lungs and brain, which, in the opinion of some routine legitimate physicians, contra-indicates the use of such articles. By some ancient authors the leaves of savine (*juniperus sabina* of Linnæus) are highly extolled as an uterine deobstruent; and throughout the Continent, savine is a popular remedy both for retention and suppression of the uterine secretion. Dr. Uwins recommends the powdered leaves to be administered in conjunction with a "warm stimulating purgative," as the following pills: —

Take of the Pill of Aloes and Myrrh,
Compound Extract of bitter Apple,
Powdered Leaves of Savine, of each, 2 scruples.
Mix; and after forming a mass with Mucilage of Gum Arabic, divide it into thirty pills, of which three may be taken night and morning.

The doctor adds, after the bowels have been well acted upon, and the stomach is able to bear it, administer steel wine, as a drachm or more, two or three times a day, with peppermint or pennyroyal water. The dose of three of the foregoing pills twice a day is much too large to continue for many days. I have known a wine-glassful of an infusion of savine, taken twice a day for a fortnight, succeed in several obstinate cases of retention, in languid constitutions, to produce the uterine secretion; but, being a powerful stimulant, it should be administered with great caution in cases attended with plethora or febrile excitement. If after improving the general health, and keeping up a regular state of the bowels by the pills, the uterus should remain indolent, it will be proper to have recourse to a medicine which will act more immediately on it. With this view, four grains of blue pill may be administered every other night for a fortnight, which very rarely fail to produce the desired effect in the course of a month. If, however, the secretion should not take place in the course of a fortnight after the blue pills are discontinued, the uterus may be stimulated once a day, by passing through its region a gentle electric shock. *

In a late number of the Gazette of Health, a topical remedy (an injection of spirit of hartshorn in milk) is noticed, which had been very successfully employed in France, by M. Lavagna. This remedy I have known to succeed in a few cases of long standing; but in two cases it excited a considerable degree of inflammation, which extended to the rectum and bladder. Dr.

* A physician of Edinburgh, whose name I have forgotten, sometime since recommended a tourniquet to be applied to each femoral artery during the use of this remedy, for the purpose of increasing the circulation in the viscera of the pelvis: and in obstinate cases of retention, the practice is very likely to succeed. Dry cupping of the thighs and legs, in some instances, has proved a powerful auxiliary.

Chesholm, an eminent physician of Canterbury, has employed this remedy (twenty drops of the spirit in three table-spoonsful of tepid milk) in several obstinate cases of retention, and in *every instance*, he says, with "invariable success." From the peculiar texture of the cervix uteri, and of the vagina, so powerful a stimulus should be employed with great caution; for if the parts should be too much stimulated, very serious structural mischief might ensue. The remedy is in other respects, which I need not notice, so very objectionable, that few practitioners would resort to it, unless it be absolutely necessary to save life, or to produce a diversion in favour of a disease in the lungs, far advanced towards an incurable stage. If, notwithstanding the general health is established by the foregoing means, the uterus does not perform its periodical office, it will be proper to imitate nature, by taking four or five ounces of blood from a vein in the foot, every five weeks, till the secretion takes place. The use of the warm-bath once or twice a week, the warm foot-bath, or hip-bath, three times a week, friction over the bowels, exercise (as dancing, skipping, riding on horseback, &c.) are powerful auxiliaries to medicine in promoting the uterine secretion. If the stomachic aperient pills should not operate sufficiently on the bowels, a pint of water, with a table-spoonful of common salt, heated to about 100 degrees (Fahr.) may be injected into the rectum once or twice a day. This remedy will not only prove beneficial in promoting the aperient effects of the day pills, but also, by stimulating the rectum, and acting as a fomentation to the uterus, will operate powerfully in bringing on the secretion. If the blue pill, recommended above, should, with the day pills, produce more than one or two evacuations daily, the dose of the latter should be decreased.

If the chest be free from disease, a gently stimulating and moderately nutritious diet will be proper. Wine and spirituous liquors should be avoided. In case the irritation should run high in the chest (*i. e.* attended with acute pains, or what are termed stitches, slight fever, dry short cough, frequent shiverings, &c.), attention should be directed more to the state of the lungs than to that of the uterus; and no active or stimulating medicine should be exhibited by the mouth to bring on the uterine secretion, till the morbid irritation, or inflammatory excitement of the chest, be removed by blistering, leeching, mild aperient and diaphoretic medicines.

Since writing the preceding article, Dr. Miller, an eminent German physician, has informed me, that he has administered the tincture of iodine, in the dose of twenty-five drops, twice a day, in a wine-glassful of infusion of camomile flowers, in cases of retention of the uterine secretion in scrofulous subjects, with

great success. The effects of this article in similar cases, I have noticed in a late number of the Gazette of Health. It should not be administered till the general health has been improved by the aperient stomachic pills.

The saturated tincture of the ergot of rye has also been successfully administered in this country, in the dose of from twenty to forty drops twice a day in a small wine-glassful of a weak infusion of savine, in cases of retention and of suppression of the menses.

The tincture of black hellebore root, in the dose of a teaspoonful, twice a day (in a wine-glassful of water), is much extolled as a remedy for this disorder by Dr. Mead; it has not, however, succeeded so well in the practice of others. Dr. Cullen asserts that in many trials he never found it to answer. In fact, there is no medicine that possesses *specific* powers in producing menstruation, and therefore the disease is only to be cured by a combination of means, the success of which principally depends on improving the general health of the body, as the Stomachic Aperient Pill, noticed page 443.

Frequent and habitual exercise of the body is of the highest importance. It is absolutely necessary to surmount the antipathy which such patients have to an active life. The inclination to indolence is doubtless a symptom of the disease, therefore circumstances are to be proposed to them which will induce them willingly to take exercise. Innocent recreations, such as dancing and rural occupations, will answer this purpose.

If the patient suffer much pain in the head, or be affected with giddiness in consequence of a determination of blood to the brain, the feet should be put into warm water every night, and eight or ten ounces of blood extracted from a vein in the foot or arm. If the pulse be full, or if the patient complain of difficulty of breathing, and a sense of tightness across the chest, the *timely* loss of blood from the arm, and a blister to the chest, may prevent consumption of the lungs.

These remedies are adapted to the cure of the *retention* of the menses, termed chlorosis, or green-sickness; I shall now proceed to the consideration —

OF THE SUPPRESSION OF THE MENSES. — Every interruption of the menses is not to be considered as a case of *suppression*, for the discharge is not always immediately established in its regular course; and, therefore, if any interruption happen in the space of the first or second year, it may be considered as a case of retention, termed *chlorosis*, or *green-sickness*, if attended with the symptoms peculiar to that state. The cases, therefore, of suppression, are such as occur after the flux has *for some time been established* in its *regular* course, and in which the interrup-

tion cannot be referred to the causes of the retention termed chlorosis, but must be imputed to debility, or diminished irritation, or restriction of the vessels of the womb. There are, however, some cases, which depend on *general* weakness of the system; but in such cases the suppression always appears as symptomatic of other affections, on the removal of which its recurrence depends.

A suppression of this periodical discharge seldom continues long without being attended with various symptoms of disorders in different parts of the body, arising from the blood being determined to other parts of the body instead of the womb, and often with such force as to rupture a blood-vessel; hence, bleeding from the nose, lungs, stomach, and other parts, is often produced: besides which, the patient is commonly affected with hysteric fits and indigestion.

TREATMENT.—The treatment of suppression of the menses must be regulated by the state of the body. When the system is in a plethoric state, the cause generally arises from a restriction of the vessels of the womb, in which case the loss of blood, and the warm bath to 100 degrees, are the most efficacious remedies.

In all cases, costiveness should be avoided, by the use of such aperient medicines as will at the same time produce a determination of blood to the neighbourhood of the womb *, as the Aperient Pills, p. 89.

In case of violent head-ache or much cough, the loss of blood, according to the strength of the patient, or symptoms of plethora, will likewise be proper.

The Peruvian bark, steel, and other astringents, usually employed in such cases to strengthen the system, by *increasing* the *constriction* of the vessels of the womb, often do much harm. The feet should be put every night in warm water for ten minutes, and kept warm during the day-time by the use of thick flannel socks. The diet must be regulated according to the symptoms of plethora and debility; if the patient do not suffer from local plenitude, as head-ache, oppression of breath, &c., it should be of the nutritious kind, but not stimulating; wine, particularly Port, and spirits, should be avoided. Exercise is of greater consequence than medicine, as it will obviate plethora, amuse the mind, and promote digestion. If, on the contrary, it be attended with symptoms of local or general fulness, a low diet should be strictly observed, and all stimulants, as wine, brandy, &c., avoided.

* For the purpose of immersing the hips in warm water, a convenient bath has been constructed, named the Hip-bath.

If the system be in a debilitated state, with pallid countenance, the treatment recommended for the retention of the menses should be adopted.

The advertised nostrums for obstruction of the menses are very numerous; but no single remedy, it is clear, can be applicable to every case of suppression.

Having considered the two kinds of interruption of the menstrual discharge, I shall proceed to the consideration of the *increased* quantity, termed —

Flooding. — The flow of the menses is considered immoderate when it recurs more frequently *, when it continues longer, or when, during the ordinary continuance †, it is more abundant ‡ than is usual with the same person at other times. It is not, however, every *inequality* that is to be considered a disease, but only those deviations that are *excessive* in degree, which are *permanent*, and induce a *manifest state of debility.*

When a large flow of the menses has been *preceded* by headache, giddiness, or difficulty of breathing, and has been ushered in by a *cold shivering*, and is attended with much pain in the back and loins, with a frequent pulse, heat, and thirst, it may then be considered preternaturally large; and, in consequence of a continuance or recurrence, the face becomes pale, the pulse weak, an unusual debility is felt on exercise, the breathing hurried by much motion, and the back becomes pained in an erect posture; when the extremities become frequently cold, and when, in the evening, the feet are affected with œdematous swelling, we may conclude the flow of the menses to be *immoderate*, and to have induced a dangerous degree of weakness. General nervousness, with affections of the stomach, frequent faintings, and an irritability of mind, liable to strong emotion from slight causes, especially when suddenly presented, are also attendant symptoms.

Causes. — It is produced by a preternatural determination of blood to the womb, or a plethoric state of the body, from high living, strong liquors, over-exertion (particularly dancing), violent passions of the mind, application of cold to the feet, frequent abortions or child-bearing, and whatever will induce great laxity, as living much in warm chambers, and especially

* The usual period is from twenty-seven to thirty days.

† The time of its continuance varies in different constitutions. It seldom continues longer than six days, or shorter than two. In general, females of a lax and delicate constitution have a more copious and continued discharge than the robust.

‡ It is extremely difficult to ascertain, precisely, what quantity is usually discharged; but women themselves can generally inform the physician, with sufficient exactness for regulating his practice, whether the discharge be immoderate. The average quantity is supposed to be about five ounces.

drinking greatly of warm enervating liquors, such as tea and coffee.

When excessive menstruation occurs after the age of forty, and particularly when it is preceded or succeeded by pains in the region of the womb, some organic mischief may be suspected, which may require the assistance of an experienced surgeon. A prolonged menstruation is also often the consequence of such disease.

TREATMENT. — When a copious menstruation has come on, it should be moderated, as much as possible, by abstaining from all exercise, either at the coming on, or during the continuance of the menstruation; by avoiding an erect posture and external heat, as warm chambers and soft beds; by using a light cool diet (such as former habits will allow), by obviating costiveness, by the use of mild laxatives (as castor oil and lenitive electuary); the external and internal use of astringents, to constringe the vessels of the womb, as the application of cloths sprinkled with vinegar over the region of the womb, and the astringent Mixture (A), p. 112, taken as there directed.

If the discharge, notwithstanding the use of these remedies, should continue immoderate, the following lotion may be thrown up the vagina, by means of the female syringe: —

Take of Pomegranate Rind, bruised, - 3 drachms.
Boil in a Pint and a quarter of water to a Pint, then strain and add Alum, - - - 1½ drachm.
To be used cold. *

In obstinate cases, attended with general relaxation, the saturated tincture of ergot of rye has lately been administered with great success. From twenty to forty drops may be taken in the astringent mixture noticed above.

Ipecacuan powder, in the small doses of two or three grains, so as to excite nausea, and not vomiting, according to the experiments of Dahlberg, as related by Dr. Murray, has been found to answer in many cases. It should be administered with caution, since it sometimes greatly increases the discharge by exciting vomiting. Dr. Cullen once met with an accident of this kind, in which the vomiting increased the discharge to a great and dangerous degree. Spontaneous vomiting is, however, often attended, in such cases, with the most decided benefit in checking the discharge; and I have known the exhibition of an

* Astringent medicines should not be employed unless the strength of the patient is much reduced, and the discharge evidently of a passive nature. The employment of astringent injections, before the system has been properly unloaded, and the fever abated, by suddenly checking the discharge, may be productive of inflammation of the brain or lungs, or inflammatory fever. See Supplement to the 33d Number of the Monthly Gazette of Health.

emetic dose of ipecacuan powder, snatch, as it were, the patient from the jaws of death.

When organic disease of the womb exists, the exhibition of a little mercury, in the manner recommended for scrofula, will be necessary during the intervals of menstruation.

In cases of flooding, attendant on miscarriage, or lying-in women, the patient should be kept as quiet as possible till medical assistance can be procured. If it be very considerable, a cloth wetted with cold vinegar may be applied to the loins and bowels till his arrival.

When flooding occurs during labour, the life of the woman may be considered in such imminent danger, that not a moment should be lost in obtaining the assistance of an experienced *man-midwife*.

PREVENTION. — When flooding arises from laxity of the system of the vessels of the womb, or when the discharge has induced much debility, it will be proper, during the *intervals* of menstruation, to employ cold bathing, and some strengthening medicines, as the astringent Mixture (A), p. 112.

Practical Remarks. — Flooding is both of an active and a passive kind. When it is active, that is, occurring in a full habit, it is in general only necessary to avoid exercise, to adopt a mild diet, and to keep the bowels open, for in such case it generally continues till it has sufficiently unloaded the system. Local applications should not be employed unless the system is clearly sinking under it. In the leucophlegmatic or relaxed habit the cause is debility or relaxation, and in such case the Astringent Mixture (A), p. 112, and even an astringent injection, and an astringent clyster, are sometimes necessary. Flooding is often a precursor of miscarriage, in which case *coagula* (clots) are discharged. The treatment of such flooding must be regulated according to the state of the system.

OF THE CESSATION OF THE MENSES. — The most critical period of a woman's life is, perhaps, when the menstrual discharge is about to cease, which generally happens in this country between the fortieth or fiftieth year, and sometimes at the age of thirty-five. If this period be passed over without producing disease, the general health is often soundly established; but, for the most part, the entire cessation is succeeded by some organic disease of the womb or stomach, or a determination of blood to the head, producing violent head-ache, giddiness, apoplexy, &c., or to the lungs, occasioning consumption, or the intestines, occasioning diarrhœa. At this period a female should be very particular in avoiding fulness of the system, by moderate exercise, abstemious diet, and by keeping the bowels open by an active purgative, as the Aperient Pills, p. 89. In case of violent

head-ache or giddiness in a full habit, the loss of blood from the arm will be necessary; but the most powerful preventive of mischief at this critical period of life, is an issue in the arm or thigh, which should be applied some months before entire cessation of the menses, or as soon after as possible. (*See* EVACUANTS, p. 32.)

Those female readers who may not find in the preceding chapter the information they require, I recommend to consult the *Supplement* to the 33d number of the Monthly Gazette of Health, in which I have introduced observations and instructions, which, from motives of delicacy, I have thought proper to omit in a work published for domestic reference.

OF THE MUMPS. — This disease is often epidemic, and by some practitioners supposed to be infectious.

SYMPTOMS. — Like other inflammatory affections, it generally comes on with the common symptoms of fever, such as cold shiverings, sickness, vomiting, pain in the head, &c. which are soon succeeded by swelling of the parotid glands, producing a considerable tumour at the corner of the lower jaw; often only in one gland, but more frequently in both; sometimes finishing its course in one, and afterwards attacking the other. It increases till the fourth day, and from that period it declines, and, in a few days more, goes off entirely.

TREATMENT. — This disease commonly runs its course, without either disturbing the general health, or producing derangement in the structure of the gland; so that a low diet, and the occasional use of the Aperient Mixture, p. 111, are only requisite. If, however, the swelling be considerable, and the fever run high, with pain in the head, the application of leeches to the part (and sometimes the loss of blood from the arm, if the patient be of a full habit), a blister to the nape of the neck, and the Saline Mixture, p. 114, will be necessary.

If the swelling should decrease rapidly, and in a female the breast should become tumefied, the Discutient Lotion (A), p. 126, should be applied to the affected breast or breasts; and the Stimulating Poultice (A), p. 122, applied to the primary swelling. The bowels should be well unloaded by the Purgative Mixture (A), p. 113, and if the inflammation should run high in the breast or breasts, from six to twelve leeches (according to the state of the system) should be applied over the part or parts affected.

OF NERVOUS DISEASES. — About thirty years since, it was the fashion among medical men, regular and irregular, and even invalids, to term nearly all the chronic affections of the head and stomach, *nervous*; and for those of the higher classes of society, who had disordered their stomachs or disturbed their

general health by indulgence in vinous liquors and dissipation, to be nervous; and as long as this theory prevailed, some fashionable physicians were as active in disseminating doctrines explanatory of nervous affections, as those of the present day are of accounting for the prevalence of bilious complaints.

Of the two theories, the *nervous* is more consistent than the *bilious;* for the primary moving powers of the animal machine residing in the cerebral system (the brain and nerves), and the functions of all the organs being dependant on nervous influence, most diseases, even those which do not originate in the nervous system, are more or less influenced by it, inasmuch as the nerves are more or less disordered by all; and it is not uncommon for the disorder of the nervous system to become more formidable than the primary affection, and even to continue after it has terminated. So satisfied are practitioners of experience and observation of this fact, that in the treatment of every disease they always keep in view the state of the nervous system.

The term *nervous* is often used by non-medical writers and by patients, to express opposite states of the body; the former sometimes meaning by it strength, and the latter debility. When medical men apply it to the body, they mean to say, that the nerves are preternaturally sensible, receiving great impressions from very slight causes; but when it is applied to a local disease, it signifies that it is confined to the nerves of the part, whether they be in a state of *increased* or *diminished* sensibility. For instance, if a limb be paralysed, or the sensibility of its nerves diminished, the affection is termed *nervous;* and if the nerves be so morbidly sensible, that the slightest touch, or even a breath of air, is capable of exciting the most acute pain, as in tic douloureux, &c., it is also denominated *nervous.*

Of all the parts of the body, the anatomy of the brain is the most complex. Anatomists are well acquainted with the divisions, prominences, sinuses, fissures, and the different appearances this organ exhibits on dissection; but the most able physiologists of the age do not pretend to explain the offices of the different parts. There can be no doubt that every part of the brain, however small, has its use in the animal economy.

Messrs. Gall and Spurzheim, of Paris, have, within these few years, revived a theory, which, *they* suppose, throws great light on the physiology of the brain. They pretend to have ascertained that the brain is composed of a variety of organs (about forty), which perform the various operations of the mind, and they pretend to point out those which perform different offices or functions; as the organ of attachment to life; the organ of preservation of life; the organs of the selection of articles of diet; of the external senses; goodness; of attachment;

of murder, falsehood, theft, &c., &c.; and they accordingly attempt to discover the dispositions or ruling passions of individuals, by the certain prominences of the skull, as indicative of the size of the organs of the brain which they cover. If this theory be correct, how are we to allow for the division of what is immaterial —a solecism in physics,—or to separate independent powers acting in different parts of the body? How are we, indeed, to account for the different powers of the body, as the *vis insita*, the *vis nervosa*, the *vis conservatrix*, or the *vis medicatrix*, &c.; and for the sympathies, direct and indirect, which exist in the living body?

The converts to this theory contend, that a knowledge of it is of great importance, even to parents, in order to enable them to ascertain the innate dispositions of their children. When a prominence of the skull indicates an organ of vice to be large, the tutor is directed to check its growth, by bringing forward the organs of goodness; as those of religion, philanthropy, parental affection, &c. Hence, then, these very organs, on which the powers or operations of the mind are dependant, are to be influenced through the medium of the mind, which clearly implies, there is a *superaddition* to the organs. I have heard this fanciful theory much condemned, on the supposition that, it favours the gloomy doctrines of materialism: but so far from this being the case, it appears to me to refute them; because the fact of one organ being brought into action by another, which is remote from it (allowing a variety to exist), and the concatenation of ideas which depends on a peculiar communication between them, prove that they are all under the influence of some power which cannot be demonstrated, and which is evidently independent of the organs, and indeed of matter.

I have paid some attention to the system of Dr. Gall, and I confess, although at first prejudiced in its favour, I have not discovered any thing to admire, except the fertile powers of the Doctor's imagination. With respect to a knowledge of the dispositions or the ruling passions of individuals, or of the anatomy of the human mind, with which physicians are so little acquainted, I am disposed to believe that the science termed *physiognomy*, or that of forming an opinion of the dispositions or qualities of the mind, from the features of the face, and expressions of the countenance, is far more rational and a more certain guide than the system of Gall. The late Mr. Sharp (the first engraver of human countenances this or any other country has produced, and who, to enable him to diffuse, as it were, the *mind* of the person whose portrait he copied, paid particular attention to the physiognomy of a great variety of animals), always formed an opinion of the ruling passions and dispositions of a person from

the resemblance of his countenance to some brute; and I have heard him say that, governed by this guide, he rarely erred. He admired the countenances of the late Duke of Norfolk, and of the late Mr. Fox, because they resembled that of the lion. His biographer states, that he refused a considerable sum to engrave the likeness of the late Mr. Pitt, because his countenance was a composition of the expressions of a set of brutes of artful minds. Although a Whig, he always avoided the company of some gentlemen of the same politics, who were particularly desirous to become acquainted with him, because their features resembled those of a baboon, an animal of a filthy disposition. He gratuitously engraved the likeness of Mr. Brothers, the pretended prophet, because he fancied he discovered in his physiognomy a superhuman simplicity. This celebrated artist considered himself gifted with metaphysical powers of the mind. Speaking of the atheistical doctrines of a *philosophical* bookseller, he emphatically observed, " His opinions serve his trade, and certain results of his trade flatter his vanity: but he as firmly believes in the existence of a God, and in a future state, as myself; and I want (said he) no further evidence of the existence of a God, than the blades of grass over which I carelessly walk every day of my life." He, in fact, like the untutored Indian,

" Saw God in clouds, and heard him in the wind."

The brain is generally considered to be the seat of sensation, the theatre of all the intellectual operations, and the uniting medium between the body and soul. The operations of the mind are not always influenced by a disordered condition of the brain; for an invalid, whose brain and nervous system are so excessively excitable as to be disturbed by " a breath of air," or to receive violent impressions from very slight causes, and although in such a state of debility as to be incapable of commanding the muscles of the upper and lower extremities, yet often possesses a very strong and steady mind, taking great pleasure in deep philosophical research, and is even capable of evincing great depth of reasoning on the most abtruse subjects, and of drawing correct conclusions. Indeed, nervous subjects, as the late Lord Erskine, and other advocates, have shown much subtilty of reasoning, ingenuity of argument, and even corporeal strength, when engaged in defence of a client. I have known a very nervous nurse of a provincial hospital, who was often exceedingly distressed by slight unpleasant intelligence from her family, and agitated by an unpleasant occurrence, hold the limb of a patient during the amputation of it with great firmness, and apparently without any feeling of sympathy; and a soldier who had been

engaged in many sanguinary battles, whose nervous system was apparently callous, to faint on witnessing the same operation. It is also common to meet with persons possessing minds most acutely sensible (feeling for others' woes more sensibly than the sufferers themselves), whose nervous systems are peculiarly strong and firm; and also with persons whose nervous systems are extremely irritable, with minds devoid of any thing like sympathy or commiseration. The state of the mind, therefore, throws little light on that of the nervous or cerebral system. The fact of a nervous and debilitated person possessing a very strong mind, clearly shows, that certain operations of the mind are not mere secretions of the brain, as the advocates of the gloomy doctrines of materialism assert, but afford incontrovertible evidence, if any were necessary, of the superaddition to the body of an immaterial principle, termed the soul. The mind, however, is sometimes influenced by the disordered condition of the brain, becoming extremely irritable and fanciful. When it is directed to the state of the health of the body, the complaint is termed hypochondriacism. This affection, which is generally treated as imaginary, is as much dependant on corporeal disorder as any other malady; and the patient having no more command over his complaint than a person afflicted with gouty inflammation has over the pain, has as much claim to commiseration, and as great a right to expect as much relief from medicine, as any other invalid. When the mind fixes violently on any particular subject, as religion, politics, &c., it is apt to become *partially* diseased; and when it becomes diffused, or, as it is said, "abroad," *i. e.* fixing on no particular subject, but running rapidly from one to another, mania may be apprehended, which is generally dependant on some morbid condition of the brain.

Singularities or peculiarities of the constitution, which so frequently occur in practice, technically termed *idiosyncracy*, appear to be dependant on the nervous system. So general and common is peculiarity of constitution, that I may say, that almost every individual has, in some degree, a state of health peculiar to himself, independant of the morbid temperaments, as the sanguineous, the leucophlegmatic, the erysipelatous, the nervous, &c. &c. On some persons, a mild application to the skin will produce considerable inflammation, and this effect is sometimes occasioned by a simple ointment of bees' wax; and it is not uncommon for a mild article of diet, as veal, &c., to disorder the bowels. I lately met with a nervous patient, who was in the habit of taking two grains of opium (an article which is commonly administered to check diarrhœa, and which almost uniformly constipates the bowels) as an aperient; and he always

found it operate as effectually and much more pleasantly than any of the class of opening medicines.

It is, therefore, incumbent on patients to acquaint their medical attendants with the peculiarities of their constitutions, and the duty of physicians not only to attend to such statements, but to obtain a thorough knowledge of them. The fashionable physician, who generally estimates the *success* of his practice by the number of his fees, cannot spare time to listen to the narratives of his patients. His duty (to himself) is confined to a short ceremony of making an imposing exhibition of a watch and its ornamental appendages (a chain and seals), looking at the tongue, and writing a prescription, to entitle him to the fee, and in receiving it his object is attained. A certain system-monger, celebrated for eccentricity, thinks it waste of time to attend to any such "*irrelevant nonsense*," as he terms it; for, let the complaint be chronic or acute, primary or symptomatic, and the peculiarities of the constitution ever so singular, it must give way to the blue pill and an aperient draught; and, although the peculiarities are not diseases, but dependant on original organization, even they must give way to his *blue pill* system. Peculiarity of constitution has been noticed as an objection to domestic medicine; but, so far from this being the case, I really think it operates in its favour; for, surely, the invalid, who is acquainted with his peculiarities, must be as competent, if not more so, to the treatment of his own complaint, as the physician who does not take the trouble to become acquainted with them. All diseases are more or less modified by peculiarities, and, in one constitution, a disease requires an opposite treatment to that which is proper in another, and the power of ascertaining the cause of such modifications is not to be acquired at any school, or even by extensive practice, but by knowledge obtained from patients themselves. It was the practice of the late Dr. Campbell, of Hereford, and the late Dr. Reynolds, of London, to keep in view the nervous system in the treatment of all maladies; and the most experienced practitioners are aware, that, in the treatment of diseases, there is more to combat in the constitution from nervous excitement or peculiarity than in the disease itself.

The sympathies of the human body I have noticed p. 248.

Some physiologists have supposed, that one office of the nerves is to convey a subtile matter from the brain, which they have termed the nervous fluid. After the discovery of the supposed modified electric fluid by Galvani, some physicians imagined, that it was the same as the nervous fluid, and many results of experiments on animals have been published to prove their identity. About sixteen years since, I published a system of medicine, founded chiefly on this supposition; but, on making

experiments on animals, I discovered, instead of the *nerves* being such excellent conductors of the galvanic fluid as the advocates for the theory had stated, that the *muscles* of the body were better conductors. The opinion was afterwards taken up by Dr. Philip, who thought that he had so far satisfactorily ascertained that the galvanic fluid was the same as the nervous fluid, that when an organ was deprived of the latter, by cutting off its principal nervous communication with the brain, it performed its functions when supplied with galvanic fluid. The experiments were repeated by others as well as by myself, but no such results appeared. The manner in which the doctor performed his experiments proves that he was unacquainted with the science of galvanism or electricity; for the fluid, instead of passing by nerves to the stomach, as he imagined, travelled by the skin in a direct line from the positive to the negative pole.

The physiologists who suppose that a subtile fluid, similar to the galvanic, is conducted by the nerves from the brain, have not ventured to risk an opinion as to the source of the fluid, *i. e.* whether it be secreted by the brain from the blood; whether it be electric fluid modified or animalised by the brain; or whether it be disengaged by the decompositions which take place in the lungs during respiration. If a fluid analogous to the electric or galvanic were really conveyed from the brain by the nerves to every part of the body, surely its existence might be easily demonstrated; but although a great variety of attempts have been made by ingenious philosophers to collect it, by surrounding the body with non-conductors of the electric or galvanic fluid, and by dividing the principal nerve of the thigh, and even the spinal marrow, and drawing forward the divided extremities with a non-conducting forceps, so as to bring them nearly in contact (in a dark place), nothing like a galvanic or electric fluid has appeared, nor did either end evince any thing like an attractive or repulsive power.* The celebrated physiologist, Hunter, who believed for some time that a subtile fluid was con-

* Since writing these remarks, I find, by an article in the Parisian Journal of Physiology, that Dr. Breton, professor of Medicine at Grenoble, has lately communicated to the President of the French Academy some observations relative to a development of electrical phenomena during an epileptic paroxysm. Should the professor not be a physiological dreamer, like the generality of the physiologists of France, the fact will greatly strengthen the theory of our scientific countryman, Surgeon Mansford, of the dependance of epilepsy on an accumulation of electric matter. The epileptic fit is, in my opinion, the consequence of an interruption of the reciprocity of action between the nervous and muscular system. Another dreamer, not being able to account for the source of a sufficient supply of the galvanic fluid for the purposes of keeping up the vital powers, has discovered two parts in the structure of nerves, one of which he supposes conveys the fluid from the brain, and the other re-conducts it to the brain!!

veyed by the nerves from the brain (the nervous fluid), after many experiments, and much reflection on the nature and source of the vital principle, became satisfied that the brain does not secrete a subtile or any other fluid, and that it and the nerves are supplied with a vital principle in the same manner as the muscles and other solids, principally, if not wholly, from the blood. He supposed that the source of primary living power of the body (materia vitæ profusa) was the blood instead of the brain and nerves, because, when the brain is deprived of blood it dies, and when the circulation is completely obstructed in a limb, the nerves, with the other parts, die at the same time; but when the nervous connection of a part with the brain is entirely cut off, the life of it continues so long as the blood is transmitted through it.

The theory, which is opposed to that of Mr. Hunter, considers the brain and nervous system as the fountain of life; and so far from receiving its life from the blood, the nervous system is capable of instantaneously changing the crasis of the blood, or any other animal fluid; and though the nervous system cannot continue its actions for any length of time, if the action of the blood-vessels be suspended, yet the heart and blood-vessels (say the advocates for this doctrine) cannot act a single moment without the influence of the nervous fluid. "Hence," say they, "it is plain we may suppose the nervous system, and not the blood, to contain properly the life of the animal, and, consequently, to be the principal *vital* organ."

The irritability or contractile power of muscles is independent of nervous influence; and as to the action of the heart not continuing a single moment without the influence of the nervous fluid, the ventricles of the heart will continue to contract and dilate alternately for some minutes after it is removed from the body; and certain it is, its action is not diminished in the smallest degree by dividing the nerves which connect it with the brain, or by dividing the upper part of the spinal-marrow (in the cervical portion of the vertebræ). I have frequently seen these experiments repeated in rabbits, after removing the breast-bone, so as to expose the heart to view.

The existence of the various powers in the living body, which I have enumerated, clearly proves that an intelligence pervades the whole human machine; and the supposition that the brain and nerves are the connecting medium between it and the body, many phenomena tend to confirm. Of the nature of this superaddition (the soul) to the body, as Hunter observes, we are ignorant. It is that immaterial or spiritual part, the existence of which we feel, but on which we cannot concentrate the rays of the mind.

The anatomist, who has paid attention to the philosophy of the human body, must be satisfied that an intelligence pervades every part of it, and that this intelligence is independent of matter; that it is, in fact, as Abernethy observes, a superaddition to the body, and on the loss of which the body becomes defunct, although entire on losing it, as in cases of sudden death from lightning. On taking a view of the progress of the embryo, the existence of this intelligence is, perhaps, still more evident, for under its power the various parts of the body are formed. In noticing the incubation of the egg (in the 102d number of the Gazette of Health, p. 982), I have described the progress of the formation of the brain, heart, muscles, bones, &c. &c. from what is usually termed the white of the egg. In the formation of the embryo, the vital principle may be clearly seen existing, as it were, at large, and acting of itself as a regulator of its own motions; and this power is not received from the hen during the period of hatching, because it is brought into action, and continues to advance till the fœtus is complete, under the influence of artificial heat.

Notwithstanding the high degree of susceptibility of the brain and nerves, constituting the "nervous temperament," the unfortunate subjects of it generally escape serious organic disease, and even epidemic complaints, although their general health is often greatly disturbed by atmospherical changes, and especially by the east or north-east wind. * The local complaints to which they are chiefly liable, on their general health being disordered, are those of simple irritation, as rheumatism, gout, a combination of gouty and rheumatic irritation, asthma, head-ache, and mania.

The class of remedies capable of allaying nervous irritation, or diminishing morbid susceptibility or sensibility of nerves, and

* The effect of changes in the wind, especially from the west or south to the east or north-east, and in the temperature and density of the atmosphere, on some nervous subjects, is very remarkable. I have frequently known asthmatics, in particular, prognosticate, by their feelings, a change in the atmosphere, a day or two before it took place, although the state of the wind, and temperature and density of the air at the time, indicated no alteration, being in the state they had been for some days. People who have lost a limb, or received a sabre wound, can foretel an unfriendly change of weather, by spasms in the muscles that had been divided or wounded; and the motion of the muscles is evident to the eye. Those involuntary actions of muscles prove that the changes interrupt the equilibrium of action between the nerves and muscular system, probably by disturbing the nerves. In an epileptic subject an unfriendly change will bring on a paroxysm. I have also known nervous subjects to be so susceptible of external impressions, as to be aware of a cat (to which they had a great dislike) being in the room with them, although they had not seen it; and also a lady, who had so great an antipathy to jalap, as to be affected with purging on smelling it. The latter effect from mental agitation on nervous subjects is well known.

for strengthening the nervous system (*See* NERVINES, p. 37), is very extensive, embracing nearly all the articles of the materia medica; denominated narcotics, anodynes, sedatives, hypnotics, soporifics, antispasmodics, stimulants, tonics, &c. &c. Many routine physicians prescribe tonic medicines and a generous diet in cases of general nervous excitability, under the idea that it is dependant on weakness; but the robust, as well as the weak, are its victims, and the general and local remedies which succeed in tranquillising the nervous system in the former, will disturb or irritate it in the latter. The *irritability* of the body is a property confined to or inherent in muscles, and probably also in membranes, whilst sensibility is dependant on nerves only; and between these two properties there is evidently a peculiar harmony or reciprocity of action, so that when the equilibrium is destroyed or interrupted, the nervous system becomes preternaturally susceptible of impressions. The effect of the east and north-east wind, which is very remarkable on some nervous subjects, may, perhaps, be attributed to an electrical influence in interrupting the harmony between the muscular and nervous systems; for certain it is, neither the temperature, the density, nor humidity of the air, at the time, has any thing to do with its baneful operation. Some nervous subjects are even sensible of the air having shifted from a friendly to an unfriendly quarter during the time they are warm in bed, and in a room in which the external air could scarcely find admittance, the windows and doors being well secured against its ingress. — (*See* TONICS, p. 49.)

Hysterical and epileptic nervous invalids are very subject to a peculiar head-ache, accompanied with considerable diminution of temperature in the extremities, and frequently in the bowels, some hours, and sometimes days, before a paroxysm, which I have often heard an invalid attribute to an accumulation of nervous energy in the brain, and others to the suspension of the action of the nerves in the extremities; and in such cases, a paroxysm generally succeeds in removing the affection of the head, and restoring the limbs to their natural state of temperature and vigour, probably by re-establishing the harmony between the nervous and muscular systems.* After this convulsive action has run its course, certain it is, both the systems (nervous and muscular) become tranquil.

The treatment of the nervous habit I have particularly noticed under the head of NERVINES, p. 37, TONICS, p. 49, and SEDATIVES, p. 41).

* Epileptic convulsions appear to be similar to those which occur on dividing the spinal marrow close to the base of the skull, which shows a connection between the nervous and muscular systems.

No medicines act more efficaciously in maintaining the reciprocity of action between the muscular and the nervous systems, or the harmonious sympathy between the various organs, than those which keep up the important processes of chylification and fæcification, and prevent accumulation of fæces and gas in the alimentary canal. — (*See* NERVOUS MIXTURES A, B, C, and D, p. 113.)

The fact of constipation being the forerunner of a variety of nervous affections, as head-ache, epilepsy, hysteric fits, St. Vitus's dance, asthma, palpitation of the heart, and even indigestion and coldness of the extremities, forcibly points out the necessity of attending to the state of the bowels. For the purpose of keeping up the peristaltic motion, rhubarb is a favourite remedy with many physicians, because, as they say, it is both stomachic and aperient; but there are two great objections to it, — viz. its tendency to increase the disposition of the intestines to constipation, and its continued use (like that of other stomachics) acting injuriously on the stomach. Such an aperient medicine should be employed that will not disorder the stomach or duodenum, but promote the secretion of the colon, and diminish the determination of the blood to the brain (a common cause of general nervous disturbance), by increasing it in the lower intestines, and, consequently, in the extremities. To answer these purposes, the extract of aloes is certainly a valuable remedy; but as it is too bitter, too drastic, and too stimulating to the rectum for continued use, I have been in the habit of prescribing it in conjunction with the alcaline extract of jalap, and the essential oil of juniper berries, in the following proportions: —

Take of Extract of Socotrine Aloes, - - -	½ drachm.
Alcaline Extract of Jalap, - - -	1 drachm.
Essential Oil of Juniper Berries, - -	10 Drops.

Mix well together, and divide into twenty pills. One, two, or three of these pills to be taken every day, about two hours before dinner, so as to produce one fæcal evacuation.

If this composition should not prove sufficiently strong to conquer the disposition to costiveness, the Purgative Pills (A), p. 117, may be taken. If these should not succeed, the Purgative Pills (B), in the same page, may be administered, and, if necessary, the Purgative Clyster, p. 103. If the patient be subject to piles, or irritation in the rectum, bladder, or urethra, the extract of aloes should be omitted. The addition of a diuretic to an aperient medicine considerably promotes its efficacy in harmonizing the abdominal nerves, by bringing the kidneys and absorbent system into action. The objection to the Epsom, Glauber's, Cheltenham, and other neutral salts, in nervous affections, I have particularly noticed, p. 58.

There is a variety of indigestion common in this country, from nervousness of the viscera, &c. of the belly (probably from a disordered condition of the ganglions, brought on by severe mental distress), in which the buchu leaves have proved singularly beneficial. In this variety, although the presence of gas and acidity shows that the stomach does not perform its office, the appetite is generally good. The fæcal secretion is very irregular, and the intestines easily disordered by an aperient medicine; ripe fruit often occasioning purging. The belly is often almost suddenly distended, without any evident accumulation of gas or fæces; and there is frequently a sensation of distention when the bowels are soft, which is generally removed by eating or drinking. — (*See* INDIGESTION FROM NERVOUS EXCITEMENT, p. 406, and Practical Treatise on Management of the STOMACH and BOWELS in various Temperaments, p. 302.)

The effects of the blue pill, and other mild preparations of mercury, on nervous subjects, are often very opposite; on some, four grains of the blue pill, or one of calomel, producing a most happy quieting effect on the stomach and whole nervous system; and on others, a smaller dose disordering the stomach, intestines, and even the brain itself. In most cases of indigestion of long standing in nervous subjects, some degree of obstruction, or organic affection of the coats of the stomach, of the substance of the liver, the pancreas, &c., generally exists, which often renders the introduction of a little mercury into the system necessary; for as long as the obstruction continues, the beneficial effects of a stomachic or a nervine medicine will be temporary. It should be administered with great caution, and its effects attentively watched; for what is termed the mercurial fever, or even irritation in the gums and salivary glands, never fails to disturb the brain and nervous system; and instances of insanity, from its incautious use, we suspect are very numerous.

If there be no secretion from the nostrils, and especially if the sense of hearing or vision be weakened, either from local debility of nerves or fulness of blood-vessels of the head from languid circulation, a little of the compound asarabacca snuff (*see* p. 153) may be sniffed up the nostrils about once a day. This composition not only relieves the brain by its action on the nerves, and by increasing the secretion of mucus from the inner membrane of the nostrils, but, by occasioning sneezing, tends to remove congestion of the blood-vessels of the brain, by equalising the general circulation.*

* The increase of temperature in the extremities and in the skin of the trunk, which immediately follows sneezing, although previously as low as 56 Fahr., shews that it occasions a determination of blood to the surface and

In cases of nervous head-ache, the Nervine Mixture (B), page 113, generally proves very beneficial.

Some practitioners of eminence highly extol a combination of iron, valerian, ammonia, and camphor, as a remedy for nervous head-ache, especially when the circulation in the extremities is languid, or the skin pale, as the following: —

Take of Valerian Root, recently powdered,	3 drachms.
Alcaline Liquor of Iron, -	4 drachms.
Compound Spirit of Ammonia, -	3 drachms.
Camphorated Mixture, -	7 ounces.

Mix. — Three table-spoonsful to be taken three times a day.

Or, Take of Valerian Root, recently powdered,	3 drachms.
Tincture of Muriate of Iron, -	1½ drachms.
Compound Spirit of Sulphuric Ether,	3 drachms.
Camphorated Mixture, -	7 ounces.

Mix. — Three table-spoonsful to be taken three or four times a day.

Nervous head-ache is sometimes attended with symptoms so strongly indicative of compression of brain from over-distention of blood-vessels, that it is often a very nice point to determine, whether the complaint be purely nervous, or whether the brain is not disordered by a plethoric state of its blood-vessels. Giddiness, ringing in the ears, imperfect vision, confusion of mind, a sense of heaviness, nausea, and vomiting, are not only the consequences of compression of brain from over-distention of blood-vessels, but also of depletion. They precede the apoplectic fit from plethora, and also the fainting fit from the loss of blood. In nervous head-ache, the pupils are generally contracted, and in the head-ache from plethora, they are generally much dilated, often one more than the other; but in cases of *nervous* head-ache, when the cerebral system is in a state of *debility*, the pupils are also dilated. The pulse, in the nervous head-ache, is languid and small, and the extremities cold; but in the plethoric head-ache it is generally full, and the extremities warm: if, however, the brain be much compressed by the over-distended vessels, the pulse will be languid, and the skin cool. The nervous head-ache may be distinguished from the plethoric, by placing the head or body in a position which favours the afflux of blood to the brain, or checks its return from the brain. If in an horizontal position, or during stooping, or looking upwards or backwards when in an erect position, the giddiness or pulsation in the head be increased, the inference is, the blood-vessels of the head are overloaded, and the brain disturbed by compression or increased vascular action; but if they produce no aggravation of the lead-

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extremities of the body, and is, consequently, capable of relieving internal parts affected with local congestion. It should be used when the stomach is most empty.

ing symptoms, and especially if they afford relief, there can be no doubt of the complaint being nervous, and that the state of the blood-vessels has little to do with it. Some practitioners have asserted, that the nervous head-ache may be distinguished from the plethoric by a stimulus, as brandy or wine applied to the stomach; but when the plethoric state is merely local, that is, not dependant on general plethora, a cordial or stimulant applied to the stomach, by increasing the circulation in the bowels, will produce a diversion in favour of the overloaded brain. A bandage applied round the head (over the temples) affords great relief in the nervous head-ache, but in the plethoric produces confusion. Nervous subjects, especially those who are of a gouty habit, are very liable to attacks of cough, termed nervous cough, on unfavourable changes in the atmosphere, from irritation at the top of the windpipe, or in the part termed larynx; and from the continued tickling sensation at the upper part of the windpipe, it is often very distressing. The irritation soon gives way to the Nervous Mixture (A), p. 113.

The observations I have made on the stomach, under the head of INDIGESTION, point out the necessity of keeping that organ in a quiet state, in the nervous temperament. With this view, nervous subjects should be very particular in the choice of articles of diet. The peculiarities of the nervous habit, as I have already observed, are so very opposite, that the best advice a medical man can give to a nervous invalid, is, to avoid those articles which evidently disagree with the stomach, and not to oppress or over-stimulate it with too great a quantity of those which do agree. So far as a general rule can be laid down, I should say, avoid all green vegetables in a raw state (as celery, water-cresses, lettuce, onions, cucumbers, radishes, melons, &c.), pickles, cheese, pastry, nuts, walnuts, sweetmeats, soups, broths, new potatoes, sweet ale, green tea, coffee, and all burnt articles (as English coffee, crust of bread, and outside of roasted meat). The best article for breakfast is the sassafras cocoa (*see* p. 157) with sugar and milk, brown bread (not new), with a little broiled bacon instead of butter. The aromatic property of this cocoa promotes digestion, and prevents the accumulation of flatus in the stomach and intestines, a property which neither tea, common cocoa, chocolate, nor coffee possesses. For dinner, the interior of roasted or boiled mutton, beef, boiled or roasted fowl, lamb, partridge, hare, &c., with mashed potatoes, asparagus, green peas or cabbage, with pepper; and finish with an anchovy instead of cheese. With respect to beverage, he should take such which he finds to promote digestion; either diluted spirit or well-fermented malt liquor. After dinner he may encourage a nap in the chair for a few minutes, provided he be drowsy, and finds himself refreshed

by it. For supper he may take a little broth, or light bread pudding; and if malt liquor be necessary to quiet the system, or dispose it to sleep, he may take with it an anchovy with some bread.

Generally speaking, three meals a day are sufficient for the nourishment or support of the body; but, in nervous subjects, there is often such peculiarities of stomachs, that it is common for local nervous excitement to take place either in the head, heart, or bowels, when the stomach is not engaged, or when it is distended with gas. The determination of blood to the stomach, and increased energy of its nerves, which take place during digestion, often relieve violent nervous head-ache and other local nervous affections; and for this purpose, it is common for nervous subjects to have recourse to frequent meals; and when they evidently quiet the system, allay local excessive action, and do not fatigue or oppress the stomach, they should be allowed. With respect to the frequency, quantity, and even quality of meals, a nervous patient should be as competent to judge as the most experienced physician.

A little exercise is necessary to keep up the functions of the viscera, and such should be preferred which pleasantly engages the mind, as travelling in countries which afford a variety of scenery and different states of society; avoiding marshy parts, — the vapour of which is very apt to disturb the nervous system, particularly of gouty, rheumatic, and asthmatic subjects. Sometimes local irritation runs so high as to render the use of an article of the class of remedies termed sedatives necessary. — (*See* effects of different SEDATIVES on the Nervous System, p. 41, and INDIGESTION, p. 403.)

OF NETTLE RASH. — This eruption is so named from its resemblance to that produced by the stinging of the nettle. It is a very mild disease, and seldom requires the use of medicine. When it is attended with fever, the Aperient Mixture, p. 111, with twenty drops of the tartarised antimonial wine, at bed-time, and a low diet, will be sufficient. If it be of a chronic nature, six drops of the dilute sulphuric acid may be taken three times a day (in a wine-glassful of cold camomile-tea). The sulphureous Purgative Salt, p. 152, is also a valuable remedy.

OF NIGHT-MARE. — This complaint comes on with an oppressive sense of weight on the chest, and great horror and agitation of mind: sometimes the patient imagines he sees spectres of various shapes, which seem to oppress and threaten him with suffocation: he attempts to cry out, but often without effect; sometimes the uneasiness continues after he awakes, so as to prevent his turning or moving in bed. The studious, and

what are termed nervous people, and those who indulge in full meals, particularly supper, are most subject to it.

CAUSES. — The most common cause of this malady, is the mechanical action of a distended stomach either by food or gas, when the body is in a position (as lying on the back) which favours the pressure of the stomach on the diaphragm, in consequence of which the powers of respiration are diminished, and even the heart itself oppressed. In some nervous subjects it is occasioned by indigestible food, as toasted cheese, or whatever disturbs the brain or nervous system by disordering the stomach.

TREATMENT. — If the patient be of a plethoric habit, the loss of blood will be proper. The use of the Aperient Mixture (A), p. 111, a spare diet, exercise without fatigue during the day, a light supper, keeping the feet warm by wearing flannel socks, and obviating costiveness, by the occasional use of the Aperient Pill, p. 117, will in general be sufficient.

If the patient be what is generally termed nervous, the Nervous Mixture (A, B, C, or D), p. 113, taken as there directed, will prove very beneficial by strengthening the nervous system, and improving the general health.

When it arises from indigestion or flatulence, thirty drops of spirit of sal volatile, or Hoffman's anodyne liquor, taken at night in water, will prevent its recurrence. — (*See* INDIGESTION.)

OF PAIN IN THE EAR, OR EAR-ACHE. — Acute pain in the ear, to which children are chiefly subject, most frequently arises from inflammation. It is accompanied by a sense of throbbing pain, and noise in the ear; sometimes deafness, and general symptoms of fever. In every affection of this kind, dispersion of the inflammation is to be attempted, by applying a few leeches within the external ear, by administering the Basilic Powder, p. 85, or Purgative Mixture, p. 113, by dropping a little laudanum into the passage, and by the application of a blister behind the ear, which should be kept open till the symptoms are considerably abated.

In all cases of a slight nature, this treatment will be found to succeed; but in more violent affections suppuration is often unavoidable: the tendency to which is marked by an increase of pain in the organ, and by a *more general* affection of the head. The only treatment then left is to endeavour to promote suppuration by fomentation, or by injecting warm water into the ear by means of a syringe. A poultice has also been advised; but the situation will not admit of its being properly applied to the seat of the disease.

When the abscess breaks, the matter should be removed by injecting warm water into the ear. Should the discharge be too profuse, mild astringent injections will be necessary, consisting

of five grains of acetate of lead, or sulphate of zinc, in eight ounces of rose-water.

Sometimes the disease extends to the bone, in which case, before a cure can be effected, exfoliation will take place.

As deafness is sometimes the consequence of this complaint, the advice of an experienced aurist, (Mr. Wright of Princes-Street,) should be taken in the first instance. If the patient be of a plethoric habit, general bleeding will be necessary.

OF PALPITATION OF THE HEART. — This affection arises from morbid irritability of the heart. The beating is frequently so violent as to be heard at a considerable distance, and sometimes the effects of the increased action of the heart may be seen on the outside of the clothes.

TREATMENT. — The treatment of this disease, like most others, must depend on the state of the system; for the morbid irritation may be the effect of increased vitality, or fulness, or of debility and relaxation, or, in other words, the inordinate action of the heart may be the consequence of nervousness from plethora or simple irritation unconnected with the state of the blood-vessels. If the system be in a *plethoric* state, the loss of blood and the use of the Aperient Mixture, p. 111, will be necessary. In case of general nervousness or debility, the Nervous Mixture (C), p. 113, is an excellent remedy. (*See* NERVINES, p. 37.) When it arises from *malformation* or *disease* of the heart, or of the large vessels, relief may be obtained by avoiding plethora, much bodily exertion, full meals, and excesses of every kind, with the use of the Nervous Mixture (A), p. 113.

If the action of the heart be very violent, a blister may be applied to the left side. If its violence should not abate after the use of these remedies for two or three days, two grains of hemlock powder may likewise be taken every six or eight hours, with fifteen or twenty drops of the tincture of foxglove; or if the patient be gouty, the same quantity of the ammoniated tincture of colchicum seeds.

This affection is sometimes occasioned by effusion of serum within the pericardium, which chiefly occurs in aged people; when small doses of calomel (about one or two grains) taken every night for a fortnight, or till the mouth is rendered tender by it, and twenty drops of muriated tincture of steel, in a glass of water, three times a day, with the jolting of a carriage once a day, will prove beneficial.

This disease is sometimes the consequence of the communication between the auricles of the heart, which exists during the fœtal state, remaining unclosed: such a case will only admit of the palliative means of avoiding plethora, violent exercise, and emotions of the mind.

When the head is affected, the application of cold water every morning has proved very serviceable.

OF PALSY.—Cullen defines palsy to be a partial impairment of the voluntary motions, often accompanied with sleep or drowsiness. In paralytic limbs it does not appear that the *irritability* (a property residing in muscles, noticed under the heads of Sedatives, p. 41, and Tonics, p. 48,) is diminished, the patient only losing the power of exercising the mind on the muscles, in consequence of the nerves being paralysed, which connect them with the sensorium: for when the fibres are brought into action by the stimulus of the electric or galvanic fluid, or by a mechanical irritant, after removing the integuments, they exhibit the same degree of contractile power as the muscles of the corresponding healthy limb.

Four primary paralytic affections are noticed by authors: viz. —

1st.—*Partial* palsy (confined to certain nerves).

2d.—*Hemiplegic* (of one side of the body). Of this species there are two varieties. First, in plethoric habits—a sequel of apoplexy; secondly, in leucophlegmatic habits,—from effusion of serum within the cavity of the skull.

3d.—Paraplegic palsy—(of the lower extremities).

4th.—Palsy from poison—externally or internally applied.

Partial palsy is produced by some local cause, as a tumour compressing the trunk or a branch of a nerve, or by a morbid change in its structure. When it is the consequence of mechanical pressure, it is obvious that little benefit can arise from application to the nerve, or from internal remedies, till the cause is diminished or removed. When the nerve is diseased, all that art can do is, to improve the general health, and to stimulate the benumbed nerve by shampooing, the electric fluid, and some other stimulating means. The fact of the nerves of the upper extremities often becoming paralysed during what is termed the dry belly-ache, and continuing in that state for many months, and sometimes years, after the removal of the internal affection, strongly points out the necessity of attending to the state of the intestinal canal (with which a most important part of the nervous system is very closely connected, viz. the ganglionic) in all cases of palsy, and, indeed, from these circumstances, in all nervous affections. When palsy is the sequel of apoplexy, or occasioned by over-distention of the venous sinuses of the brain (*See* APOPLEXY, p. 273), it is of great importance to guard against every thing that is likely to compress the vessels of the belly, as tight waistbands, bandages, &c., and to promote the circulation in the viscera by stimulating purgatives. But we are not to depend even on powerful purgative medicines to unload the

sanguiferous system in cases of vascular plenitude; for frequent copious alvine evacuations seem to have very little, if any, effect on *general* plethora. Abstraction of blood will, therefore, be necessary in a case of general plenitude, and indeed in local congestion of the vessels of the brain, or in a case of palsy from apoplexy; after which an aromatic aperient medicine, by preventing distention of the bowels by an accumulation of fæces, or flatus, and by promoting the circulation in the viscera, will prevent a recurrence of apoplexy. It is common for physicians to condemn the use of aromatic or stimulating purgatives, under the idea that they increase the determination of blood to the head; but the fact is, by promoting the circulation in the bowels, they produce a derivation in favour of the head, whilst the cooling aperient salts, as the Epsom or Glauber's salt, and the saline aperient waters of Cheltenham, as I have observed, p. 58, by diminishing the visceral circulation, occasion an increased afflux of blood to the head; of which apoplexy is a common consequence. The stimulating effects of *spirituous* articles being extended to the brain, either from absorption or some peculiar action on the nerves, are unquestionably improper.—(*See* CATHARTICS, p. 19.)

The directions I have already given for regulating the bowels in cases of costiveness of people predisposed to apoplexy, p. 276, are applicable to palsy, from compression of the brain. Dry friction, the warm vapour-bath*, dry cupping, shampooing, the stimulus of nettles, the liquor of ammonia, and cajeput opodeldoc, are good topical applications; but electricity, galvanism, and the warm-bath, so frequently recommended to stimulate the paralysed nerves, often prove injurious by increasing the determination of blood to the head. I have known fatal apoplexy immediately to follow the application of electricity.

In cases of palsy of the lower extremities, it is assuredly of great importance to keep up a regular state of the bowels by a stimulating aperient; but the disease being generally occasioned by some affection of the spinal column, or marrow, a local treatment will be necessary, as a perpetual blister, seton, friction, and stimulating embrocations. Friction with the galvanic brush, electricity, and shampooing, have also been found very beneficial when there is not a preternatural determination of blood to the brain.

* The pressure of the water, during immersion in a warm bath, on the trunk of the body, together with the action of heat on the heart and arteries, certainly occasions a preternatural afflux of blood to the brain; whereas by the vapour bath, the circulation is increased in the skin and extremities, in consequence of the body being surrounded by rarefied air. (*See* THOMPSON'S VAPOUR BATH, p. 227.)

When palsy is produced by the action of a poison, as lead, &c., or by the dry belly-ache, to which painters and labourers in lead mines are very liable, the occasional use of the Purgative Pill (B), p. 117, will be necessary. (*See* COLIC, p. 303, and STIMULANTS, p. 45.)

In this species of palsy, mercurial friction (as the Stimulating Liniment (A), page 124), galvanism, and electricity are important remedies. I must do Mr. Mahomed, of Brighton, the justice to say, that in these cases I have witnessed more extraordinary and speedy cures from his system of shampooing than from any other topical treatment. This gentleman, by a long practice in such cases, is so convinced of the necessity of maintaining a regular state of the bowels, and of emptying them occasionally by a brisk cathartic, that he never fails to give directions for these purposes.

In an early number of the Gazette of Health, I have noticed the good effects of the vomic nut in cases of palsy. This article is a powerful poison, and probably has had a beneficial influence in bringing paralysed nerves into action, by exciting a disposition in the muscular system to convulsive motions, or by occasioning slight convulsions which may re-establish the natural connection between the affected nerves, and the muscles through which they ramify; for it has been observed, that when such effects are not produced by it, the paralytic affection is rather increased than otherwise. — (*See* STRYCHNINE, p. 166.)

If the digestive organs should require invigorating, two teaspoonsful of the volatile aromatic tincture of bark may be taken two or three times a day in a wine-glass of water. The objects of this tincture are to accelerate the circulation, prevent the production or accumulation of air in the stomach or intestines, and to increase the peristaltic motion; and if it should excite considerable appetite, it should not be gratified by full meals; for in such case, by producing plethora, it would prove very injurious. If the bowels should be very sluggish, the Purgative Clyster, p. 103, may be employed.

It is of importance to distinguish palsy of a part of the body, arising from slight effusion of blood in or on some portion of the brain, from the species termed partial palsy, the consequence of compression of the trunk or branch of a nerve, or from morbid structure; as some of the remedies applicable to the latter (as electricity, galvanism, &c.) might prove highly injurious in the former, by occasioning an undue determination of blood to the head. Dissection has satisfactorily proved, that a slight effusion of blood in various parts of the brain has paralysed one leg, or one arm, the nerves of the tongue, or of one half of the face, without affecting any other part of the nervous system.

Some practitioners suppose, that when there is *considerable* and *continued* palsy, there must necessarily exist some pressure or organic disease of the brain. That the cause frequently exists in the brain, there is no doubt; but "the number of cases," says Mr. Abernethy, "in which the paralytic affection is *merely nervous*, and *independent* of visible disease, is, in my opinion, very considerable." The instances which have been related warrant this conclusion, and show such cases to be more frequent than is generally supposed. When there is organic disease of the brain, the case is very hopeless; and probably no considerable alleviation of the symptoms will take place, by attention to the state of the digestive organs. In dubious cases,—and such, on the first examination of them, the majority of these instances will probably be,—it seems right to try the effect of correcting disorder of the digestive organs, with a view to alleviate nervous irritation, before we proceed to those severer methods, which the belief of the existence of organic or vascular disease in the brain would induce us to institute. For if blood-letting and counter-irritation be employed, in order to diminish vascular action; or if mercury be used to some extent, in order to induce the absorption of deposited substance; these measures must aggravate that disorder of the general health, upon which, in many instances, the nervous affection depends.

After noticing the great advantage paralytic patients have derived from a chylopoietic treatment, Mr. Abernethy observes, "It is right, however, to mention, that in some cases to which I have attended, I have been foiled in my endeavours to correct, by the simple measures which I have related in the introductory remarks, the disorders of the digestive organs; *probably because their derangement depended* on some established disease of the brain.

"In other cases, when the functions of the digestive organs had been partially restored, the nervous and muscular affections were mitigated, but not cured. I have also met with one instance, in which the bowels became moderately correct in their functions, without any evident amendment in the state of the limbs; and I have known two instances of persons, who were suddenly seized with paralysis of the lower extremities, apparently dependant on general nervous disorder, in which the digestive organs scarcely seemed affected."

Palsy of one side of the body is sometimes occasioned by compression or debility of the cervical portion of the spinal marrow, in which case there is no affection of the tongue, the eyes, or of the head. In the treatment of such a case, a blister should be applied to the nape of the neck, the bowels should be kept in a regular state by an aromatic purgative, and the circulation in the extremities

promoted by electric sparks, or the mustard poultice. If the system be plethoric, abstraction of blood will be proper. — (*See* APOPLEXY.)

Sumach has lately been recommended as a remedy for palsy. A grain of the powder is directed to be taken in any convenient vehicle twice a day, and to be gradually increased to three or four grains. From the account given of it by Dr. Alderson, it appears to have effected more in the cure of palsy than has ever been ascribed to any other remedy, and such as justly entitles it to the attention of the *medical profession.* Being a powerful poison, it should be given with great caution. In one of the cases, the dose was increased to ninety grains night and morning; and in some it appears that even two grains produced pain in the stomach and bowels, and considerably deranged the nervous system.

Dr. Gales, of Paris, and Mr. Green, of Great Marlborough Street, London, have lately found sulphurous fumigation very beneficial in paralytic complaints, and cases of local nervous debility. They advise the body to be exposed to the fumes for a short time every day.

The inhalation of vital air to the extent of three gallons daily, I have lately found very beneficial in general and partial palsy, not occasioned by compression of the brain, or the consequence of an apoplectic fit.

I often meet with cases of morbid excitement of the brain and nervous system, in consequence of mental or corporeal exertion, to which the name of palsy is generally given. This variety is generally aggravated by stimulating or tonic medicines. The use of the Aperient Mixture, p. 111, to obviate costiveness, the spirit of nitre, as recommended p. 64, and the application of cold water to the head every morning, by means of the shower bath, I have found very beneficial in this complaint. The mind being in general much affected, the directions for its management, given under the head of hypochondriacism, should be likewise observed.

When the cause of palsy is not evident, the treatment recommended for indigestion should be adopted.

PECTORAL ANGINA. — This disease was not noticed, till the late Dr. Heberden published a description of it about forty years ago; and although it is by no means rare, it is little understood by the physicians of the present day. It is evidently of a spasmodic nature, arising from morbid excitement of the nerves of the heart, and is often the consequence of diseased structure, particularly of the artery destined to convey nourishment to this organ. A paroxysm is generally brought on by bodily exertion or mental agitation. When excited by walking,

the fit will often instantaneously cease on standing still; but after the disease has continued some months, it will attack the patient; not only on walking, but also on lying down, with such violence as to oblige him to rise up immediately in order to prevent suffocation. The fit commences with an acute pain beneath the lower part of the breast-bone, attended with a sense of constriction. The pain inclines rather to the left side, and often extends to the left arm, accompanied with great anxiety, difficulty of breathing, and a sense of suffocation. The late Dr. Fothergill observes, that *a sharp constrictive pain across the chest is the characteristic* symptom of this disease. No age is exempt from it. It attacks men more frequently than women, and particularly the short-necked, the corpulent, and sedentary.

CAUSES. — In young people this disorder probably arises from nervous excitement of the heart; but in elderly people this state is generally accompanied with some *organic* disease of the heart or the coronary arteries.

TREATMENT. — The object of practice in the treatment of this disease, is to allay the morbid excitement of the nervous system. If the sanguiferous system be overloaded, or what is termed in a plethoric state, it will be necessary to unload it by abstracting eight or ten ounces of blood from a vein of the arm; and, if there be considerable irritation in the chest, a blister should be applied over the breast-bone. The bowels should be kept open by the occasional use of the Aperient Mixture, p. 111, after which the Nervous Mixture (C), p. 113, may be taken as there directed.

If the paroxysm be violent, about thirty drops of ether, and ten of solution of acetate of morphine or laudanum, may also be taken immediately on its attack. The diet should be light, and free from every thing of a stimulating nature, as spices, spirit, and vinous liquors. The patient should be careful not to overload the stomach, or to use any kind of exercise immediately after meals, and to guard against any emotion of the mind. Corpulence being a predisposing cause of the disease, exercise, a spare diet, and the use of laxative medicines, are the best preventives. Dr. Darwin and Dr. Macbride have published several cases of this disease, that were effectually cured by issues alone.

If the patient be emaciated, the countenance pallid, and particularly if the legs swell in the evening, thirty drops of the ethereal tincture of steel, in three table-spoonsful of the infusion of buchu leaves, will afford great relief. When thus attended with great debility of the system, it is scarcely necessary to observe, that bleeding or an issue is improper.

Sometimes the irritation is of a gouty nature, in which case the remedies recommended for gout will be proper.—(*See* ANT-

ARTHRITIC MIXTURE, p. 110, and AMMONIATED TINCTURE OF COLCHICUM SEEDS, p. 149).

OF PILES, &c. — This disease consists in small tumours, situated sometimes externally, and sometimes within the verge of the anus, for the most part attended with a discharge of blood. When there is no discharge, it is termed *blind piles;* and, when the discharge is only serum, *white piles.* The malady, at first, is generally local; but, by frequent occurrence, the constitution becomes so habituated to the discharge, as to render it, in some degree, constitutional: in which case it is preceded by headache, stupor, giddiness, and other symptoms of fever, with a sense of tightness or fulness, heat, and itching, and a sense of dragging down towards the anus; or otherwise symptoms of indigestion, as flatulency, acidity in the stomach, &c., often attended with spasms. Sometimes the inflammation of one tumour runs so high as to advance to suppuration, and produce the sinous ulcer termed fistula.

CAUSES. — Piles may be occasioned by whatever interrupts the free return of blood from the rectum; such as a collection of hard fæces, or an impregnated or enlarged womb. It is sometimes produced by irritation; hence aloes, or the advertised aperient antibilious pills, the basis of which is aloes, are very apt to excite piles by irritating the rectum. The piles are sometimes the effect of relaxation and debility, and, I believe, not unfrequently arise from an inflammatory action in the rectum, and a diminished secretion of mucus from its inner membrane.

TREATMENT. — Costiveness not only increases the distention of the hæmorrhoidal veins, and the effusion in the surrounding cellular membrane, constituting piles, but is generally the principal cause of the complaint. One dose of an active purgative, by unloading the lower intestines, generally affords considerable relief; but a repetition of it in the course of a few days, frequently increases the irritation. After unloading the bowels, a re-accumulation of fæces in the colon and rectum should be prevented by the regular use of a mild dose of an active aperient, so as to produce one or two copious soft motions daily, in conjunction with a remedy, capable of allaying irritation in the rectum.

The following composition I have known not only to obviate costiveness, without exciting griping pains in the intestines, but effectually to allay irritation and inflammatory excitement in the rectum: —

Take of Alcaline Extract of Jalap, - 1 drachm.
Purified Pitch (Stockholm), - ½ drachm.

Mix, and divide into twenty-four pills; two or three to be taken once or twice a day.

A lavement of cold thin gruel, or cold water, once a day, has been lately much extolled by some French writers, as a remedy

for piles and irritative affections of the rectum and colon; and I have heard some practitioners of this country speak very favourably of their effects in allaying irritation, and especially when attended with a disposition to prolapsus. The decoction of oak bark, injected into the rectum *cold*, which is much recommended by some practitioners in cases of piles, and prolapsus ani, I have always found to excite considerable colicky pains; and when the bowels are irritable, the injection of cold water, in cases of piles, or of inflammatory excitement in the rectum, has brought on distressing colicky pains. In a plethoric person, of an apoplectic make, cold water, or cold thin gruel, injected into the rectum, might produce such an afflux of blood to the brain as to occasion apoplexy. The lower portion of the intestines are more susceptible of the action of cold than any part of the body, and in gouty and other invalids of tender bowels, even cold water or cold air, applied externally, will often excite acute spasms in the intestines, or painful purging.

If the parts have sustained much mischief from repeated attacks of inflammatory piles, the Antihæmorrhoidal Ointment (B), page 128, may be applied externally, and, by means of a bougie or candle, introduced into the rectum every night.

When the irritation extends up the rectum, the *soft* rectum bougie, besmeared with this ointment, applied for a few minutes every night and morning, when reclining in a bed, generally removes the disease in a few days, and will effectually prevent structural mischief.

If the parts be in a state of great rigidity, or disposed to stricture or structural mischief, two drachms of the ointment of belladonna may be substituted for the flowers of zinc. If the external skin be excoriated or affected with erysipelatous inflammation, which is generally attended with a distressing itching and an exudation of serum, it may be washed twice a day with the following lotion: —

Take of Sulphate of Copper,	- -	5 grains.
Elder-flower Water,	- -	4 ounces.
Mix.		

Or the following ointment may be rubbed over the affected parts every night and morning: —

Take of Citrine Ointment,	- -	6 drachms.
Barbadoes Tar,	- -	½ drachm.
Mix.		

All purgatives containing aloes, as the compound colocynth pill, the cathartic extract (compound extract of colocynth), &c., are improper in cases of piles or morbid irritation of the rectum. Such is the peculiar stimulating effects of aloetic purges on the rectum, that in general piles, and most other schirrous diseases of the rectum, may be traced to their free use. All the advertised

purgative and antibilious pills I have examined contain aloes; and to their continued use I have known invalids, who have fallen cruel sacrifices to the most distressing diseases to which human nature is subject, *viz.* the schirro-contracted rectum, attribute their affliction.

It is common for physicians unacquainted with surgery to pronounce all irritative affections of the rectum, unattended with external piles, *internal* piles, and to subject the patients to their routine treatment in such cases. Irritation within the rectum is an attendant on a variety of diseases, many of which advance to an incurable stage, during the time the patient continues under such management. In a late Treatise on the Efficacy of the Buchu Leaves, in cases of irritative Affections of the Urethra, Prostate Gland, and Rectum, I have noticed the diseases which are often mistaken for internal piles.

If the complaint be attended with a *considerable* discharge of blood, the patient should be kept quiet, in a reclining position. The diet should be taken cold, and stimulants and external heat should be avoided.

When the constitution has become habituated to the disease, and the parts have suffered from its frequent recurrence, stimulants, as pepper and ginger, taken with the aliment, often afford considerable relief. The following stimulating electuary, known by the name of Dr. Ward's Paste, has been much recommended: —

Take of Elecampane Powder, - -	2 ounces.
Sweet Fennel-seed Powder, -	3 ounces.
Black Pepper Powder, - -	1 ounce.
Purified Honey,	
And Brown Sugar, of each -	2 ounces.

The size of a nutmeg to be taken two or three times a day.

Ginger-powder, and black pepper, generally have a very salutary effect in piles, although attended with great irritation, and even a degree of inflammation, which, one would suppose, from their stimulating qualities, they would be more likely to increase. Such medicines probably afford relief, by producing an increased secretion of mucus from the inner membrane of the rectum *, and by invigorating the hæmorrhoidal vessels.

In *elderly* people, piles are very frequently the consequence of some organic disease of the rectum; in which case the early advice of an experienced surgeon should be taken; as, by topical

* The application of stimulants to inflamed secreting surfaces has often a very happy effect, by producing the natural secretion of the parts, and exciting them to a healthy action. In the same manner, it is probable, aromatics prove serviceable in colicky, and even in inflammatory attacks of the bowels.

management, and the use of alterative medicines in the first stage, much serious mischief may be prevented.

An erysipelatous inflammation at the anus is very often mistaken for piles, by people who are unacquainted with the disease. This complaint is attended with a most troublesome degree of itching, and often an ichorous discharge. It soon yields to the following ointment: —

Take of Citron Ointment, Spermaceti ditto, of each equal parts. To be well mixed together in a glass mortar, and rubbed over the affected parts two or three times a day. The solution of the Sulphureous Purgative Salt, as directed, page 152, should accompany its use.

The parts are likewise subject to excrescences or warts, which are often mistaken for piles: these may be removed by ligature, caustic, or the knife. The excision of them by the knife is preferable, on account of being more expeditious, less painful, and attended with no danger. The ablution of the parts every night and morning with the following lotion for a month, will afterwards destroy the disposition of the skin to their formation: —

Take of Vitriolated Copper,	- -	½ drachm.
Dissolve in Rose-Water,	-	½ pint.

The recurrence of piles will be best prevented by obviating costiveness, by proper management of diet, cold bathing, and general bleeding in full habits.

White piles I have always found to be the consequence of organic disease of the rectum; for the cure of which the treatment recommended for INDIGESTION, with five grains of Plummer's Pill every night, and the topical application of the Alterative Ointment (D), p. 127, have answered best.

Diseases of the rectum have, of late years, greatly increased in this country; in consequence, no doubt, of the increased use of aperient medicines, or the antibilious nostrums, chiefly composed of aloes*, to which the fashion of the day, of attributing all diseases to a morbid condition of the bile, has directed the attention of invalids. When a patient complains to a physician, unacquainted with surgery, of irritation within the verge of the anus, he is sure to attribute it to internal piles; and if it be a symptom of any other disease, he will probably order a treatment which will aggravate the mischief; and if the patient be induced, by his plausibility, to continue under his care, the disease will be hastened to an incurable stage. No class of diseases shows the necessity of a physician being acquainted with surgery more than that of the rectum. The diseases to

* The aperient pill, introduced by Dr. Dick, under the name of the Bengal Antibilious Pills, is not only a very efficacious bilious purgative, but, being free from aloes, does not irritate the rectum. — (*See* APERIENT PILL, page 89.)

which the lower intestine is subject may be easily cured in the first stage; and the deplorable cases which frequently occur in practice, are more the consequences of injudicious treatment of physicians, ignorant of surgery, than even the false promises of another no less respectable set of practitioners, the advertisers of infallible specifics.

When irritation occurs in the rectum, or about the anus, it is very common for the patient to attribute it to piles; and for physicians, unacquainted with surgery, to treat it for that complaint. I some time since met with a case of erysipelatous inflammation surrounding the anus, which, in consequence of having been treated by a high-bred Cambridge physician, extended internally and externally to the great distress of the patient. When irritation exists only in the rectum, it is generally termed internal piles. It, however, is symptomatic of different affections of the rectum; the nature of which it is necessary to ascertain, in order to adopt a proper mode of treatment, and to prevent structural mischief, a very common consequence of neglect or injudicious treatment of a simple disease. Common causes of irritation are, varicose veins (containing very dark blood), thickening of the coats of veins, sinuses from rupture of varicose veins, small ulcerations of the internal membrane, fungous and indurated excrescences, and thickening of the coats of the rectum, occasioning external piles; and if the causes of the irritation be satisfactorily discovered, by inspection, &c. much serious mischief, and many days of most harassing distress, may be prevented. The instrument generally employed for inspecting the rectum, does not expose a sufficient surface to enable a surgeon to discover the real condition of the intestine. In the first place, being made of a conical form, the anus or sphincter ani is so much put on the stretch, when it is introduced, that it will not admit of its being opened, for the muscle is in all cases of irritation in the rectum in a state of great irritability; and in the next place, the end of the instrument being nearly closed, even when it will admit of being opened to its full extent, a very small proportion of the surface of the intestine at the extremity is exposed to the eye. In consequence of finding this instrument of little or no use, I have made considerable alterations in it, which, I flatter myself, will meet with the approbation of my medical readers. Certain it is, that by its use I have been able to discover the causes of irritation in a great number of cases, and have succeeded in curing diseases of the rectum, which had been under the care of several eminent surgeons of the metropolis many months, without being in the smallest degree relieved.

Of this instrument I have given a representation under the name of *Speculum Recti et Vaginæ*, in my late Treatise on the Efficacy of the Buchu Leaves, in irritative Affections of Rectum, Urethra, &c.

The internal membrane of the rectum is also subject to chronic inflammation, exhibiting a peculiar dark red appearance, similar to the pigment termed Venetian red, with nearly a dry surface, which can only be ascertained from erysipelatous inflammation by inspection. It is in this disease, and in a varicose state of the veins, termed internal piles, that stimulants have been employed with success, probably by promoting the secretion of mucus: which, in cases of erysipelatous inflammation and ulcerations, have occasioned much serious mischief. Another advantage arising from the open end of the improved speculum, is an exposure of the strictured part of the rectum, in case of morbid contraction or thickening of the coats, so as to enable the practitioner to introduce through it a bougie with great facility. It also enables a surgeon to divide a fistulous ulcer to the extremity, when it extends beyond the reach of the finger, without running any risk of wounding the opposite side of the rectum, by using a conductor with a piece of cork fastened at the end, to receive the end of the bistoury. In cases of stricture or thickening of the coats of the intestine, or disease in the cellular membrane, extension or compression may be made more effectually, and with less pain to the patient, by introducing beyond the part the prepared membrane of the intestine of a sheep or a calf, according to the degree of contraction — the upper end being secured, it may readily be conveyed by means of a small metallic bougie, and afterwards distended with warm water by a syringe fastened at the other end. The pressure thus produced occasions no pain, and the action of the warm water facilitates dilatation. The external surface of the prepared membrane, after being moistened by warm water, and wiped dry, may be besmeared with mercurial ointment, or any other composition, the state of the internal membrane, or the nature of the disease, may indicate. In cases of ulcerations, phagedenic, glassy, or granulated, either irritable or otherwise, a weak solution of the super-acetate of copper, and also the cerate of it, have uniformly succeeded in healing them. The improved speculum is also as useful in the detection of the nature, &c. of the diseases of the vagina as those of the rectum; and, perhaps, more so in affections of the cervix uteri.

In cases of superficial ulceration, rupture of varicose veins, relaxation of the rectum, occasioning prolapsus ani, fistula, fissures, organic stricture, &c., the bougie made with the plaster of acetate of copper has proved more beneficial than any other.

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OF PLEURISY. — Inflammation of the membrane termed pleura, which covers the lungs, and lines the internal surface of the chest, is thus termed. It is attended with the same symptoms as inflammation of the lungs, and requires the same mode of treatment, with respect to medicine, diet, &c. as recommended for that disease.

PROTRUSION OF THE RECTUM (PROLAPSUS ANI). — Children, in consequence of relaxation of the coats of the rectum, and of the cellular membrane which connects the rectum with the muscles (sphincter and elevators), are subject to this complaint on straining, continued crying, coughing, &c. In such cases, an infusion of oak bark in lime-water or solution of alum (three drachms to a pint) is the best remedy. When it is occasioned by violent and continued straining at stool, from

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a cure is the removal of a portion of the intestine,
a which requires great nicety of execution, and great
in determining its propriety. Sometimes the Astrin-
Clyster (A), p. 105, administered twice a day, has been
and beneficial. When the protrusion is the consequence of debility of the sphincter muscle, which takes place in elderly or paralytic persons, the intestine should be kept up by mechanical means. Many instruments have been invented for this purpose; but that lately recommended to the attention of the faculty by Mr. Ody is decidedly the best, admitting of being applied with great facility, its use being accompanied with no inconvenience on walking or sitting, and effectually keeping the intestine in its proper place. The Tonic Mixture (A or B), p. 115, and the Astringent Clyster (A), p. 105, will act beneficially, by improving the general health, and invigorating the sphincter and levator muscles, and will prevent the debility from extending to the muscles of the bladder. In all cases of protrusion, or falling down of the rectum, the cause should be fully ascertained; for if there be considerable irritation, or inflammatory action, ulceration, or structural mischief forming stricture, astringent injections, or a mechanical support, might seriously aggravate the cause.

In females, the *oval* pessary introduced into the vagina, with one end to press on the rectum, generally answers in preventing protrusion, when the cause is debility.

PROTRUSION OR FALLING DOWN OF THE UTERUS. — Females of a relaxed or leucophlegmatic habit, who have had several children, are liable to this malady. For this complaint several instruments termed pessaries, on different constructions, are employed; and, with the topical and general treatment recommended for fluor albus, they generally succeed.

Being made with lint instead of linen, its mechanical effects are scarcely felt, and the composition which covers its surface most effectually allays irritation, and promotes a healthy secretion from the internal surface. In cases of varicose veins, and the commencement of disease in the cellular substance or coats of the intestines, which, if neglected, advance to contraction, it is also a valuable remedy. In some cases attended with hardness or sanious discharge, the surface may be covered with the cerate of the nitrate of mercury or mercurial ointment. The saturated tincture of the buchu leaves, in the dose of two tea-spoonsful, two or three times a day, in a large wine-glassful of decoction of the marshmallow root, is also a powerful auxiliary to the local treatment, by allaying irritation in the stomach and intestinal canal, and improving the general health. No local diseases disturb the stomach and constitution more than those of the rectum. By Mr. Abernethy, they are attributed to a disordered state of the digestive organs; but the immediate beneficial effects of topical applications on the general health, prove that the affection of the stomach is sometimes symptomatic of that of the rectum. The sympathy existing between the rectum and bladder, and the rectum and urethra, is so great, that it is often difficult to ascertain which is sympathetically affected. I lately met with a distressing case of morbid irritation of the bladder, and spasmodic stricture, of several months' standing, which terminated almost immediately after the removal of three small but troublesome excrescences, within the rectum.

Some affections of the rectum, as fistula, excrescences, &c., are supposed by patients to be piles; and even external piles are so frequently the consequences of structural mischief within the rectum, that I would advise those who have suffered from supposed piles for some weeks, or when the complaint is very obstinate, to consult an experienced surgeon.

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irritation in the rectum, the cause (often the small worms termed ascarides) should be ascertained, and the Discutient Lotion (D), p. 127, kept constantly applied to the part by what is termed the T bandage. If the part be inflamed, blood should be abstracted by leeches. The protruded part should be very carefully returned by means of a small candle, with the end besmeared with *fresh* spermaceti ointment. When the complaint has been neglected, the intestine and the connecting cellular substance become elongated so as to establish it as an habitual malady. In this case, the person, after the age of eighteen, often experiences considerable pain after an evacuation, in consequence of the part of the intestine within the grasp of the sphincter muscle being pinched by contraction of the muscle. When this happens, the confined portion should be returned by the instrument termed the *rectum sound* (the most easy mode), or by a candle. In this case, the only radical cure is the removal of a portion of the intestine, an operation which requires great nicety of execution, and great judgment in determining its propriety. Sometimes the Astringent Clyster (A), p. 105, administered twice a day, has been found beneficial. When the protrusion is the consequence of debility of the sphincter muscle, which takes place in elderly or paralytic persons, the intestine should be kept up by mechanical means. Many instruments have been invented for this purpose; but that lately recommended to the attention of the faculty by Mr. Ody is decidedly the best, admitting of being applied with great facility, its use being accompanied with no inconvenience on walking or sitting, and effectually keeping the intestine in its proper place. The Tonic Mixture (A or B), p. 115, and the Astringent Clyster (A), p. 105, will act beneficially, by improving the general health, and invigorating the sphincter and levator muscles, and will prevent the debility from extending to the muscles of the bladder. In all cases of protrusion, or falling down of the rectum, the cause should be fully ascertained; for if there be considerable irritation, or inflammatory action, ulceration, or structural mischief forming stricture, astringent injections, or a mechanical support, might seriously aggravate the cause.

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In the supplement to the 33d number of the Gazette of Health, I have particularly noticed this complaint. Mr. Ody has also invented an instrument for keeping up the uterus; but not having given it a trial, I cannot speak of its effects. The plan is novel, very simple, and seems to possess advantages over the pessaries in common use.

OF THE PUTRID SORE THROAT. — SYMPTOMS. — This disease, also termed malignant sore throat, commonly commences with alternate chills and heats, pain and heaviness of the head, a strong expression of anxiety in the countenance, and other symptoms of fever, which are soon succeeded by slight swelling of the throat, the tonsils becoming inflamed and tumid, which rapidly spread to the neighbouring glands. The fauces have a high florid or bright crimson appearance, somewhat shining or glossy, and soon attended with whitish or ash-coloured spots, which increase rapidly, and terminate in ulcers, more or less superficial; the tongue, at the same time, becomes foul, the breath exceedingly offensive, with general irritation or disturbance of the nervous system. The feverish symptoms are much aggravated towards night, and accompanied with delirium. The disease gradually grows worse; and, about the third day, the patient is affected with nausea, griping, and dysentery (probably in consequence of the discharge from the ulcers passing into the stomach). There is commonly (especially with children) a partial or general crimson efflorescence of the skin, or an eruption of small pustules, which relieves the affection of the stomach and bowels; the early and kind appearance of which is, therefore, to be considered a favourable omen.

CAUSES. — This disease is supposed to be produced by a peculiar specific contagion, and to be highly infectious; but it is probably occasioned by some atmospheric cause. It affects all ages, occurs chiefly in autumn, and prevails in all situations.

TREATMENT. — This species of sore throat is generally terminated by a natural course; the chief object of its medical treatment is, therefore, in the first instance, to moderate the fever in its progress, and to combat unfavourable symptoms. With the first view, the Emetic Draught, p. 106, should be administered on its commencement; and after its due operation, the Saline Draught, in a state of effervescence, as directed under the head of Crystallized Lemon Acid, p. 70. If the emetic should not operate on the bowels, half an ounce of the Epsom salt should be administered: but both emetics and purgatives should be employed with caution; for should they produce violent diarrhœa (to which there is generally a great disposition), they will, by reducing the strength of the system, tend to accelerate its fatal termination. On the contrary, if the fæces be black and offen-

sive, and the countenance and spirits be improved by the evacuations, gentle purgatives will be very proper. James's fever powder, generally resorted to on the attack of *all* fevers, is, in the *second* stage of this disease, a very dangerous medicine, and, by reducing the vital powers, has been productive of the most serious mischief, many instances of which have been noticed by Dr. Monro, who states, "that he has known it to have hurried many to their graves in a few hours." The early application of a blister to the throat, and the use of the Discutient Gargle (A), p. 109, will tend greatly to abate the inflammation and the consequent ulceration. When the diseased parts begin to suppurate, the saline draught should be discontinued for a strengthening mixture, as the decoction of Peruvian bark, with six drops of the dilute sulphuric acid in each dose (about three tablespoonsful), and the Detergent Gargle, p. 109, used instead of the discutient. The patient should be supported with strong beef tea, and arrow-root jelly; and if incapable of taking a sufficient quantity by the mouth, the Nutrient Lavement, p. 106, should be injected two or three times a day. In case of violent purging, the Anodyne Clyster, p. 104, will be proper, or forty drops of laudanum may be added to the nutrient clyster; and if the patient be not able to swallow the bark mixture, two drachms of Peruvian bark powder may likewise be added. The room should be fumigated twice a day with the Nitrous Vapours (*see* p. 195). The evaporation of the Camphorated Acetic Acid, as advised p. 86, will, in a small room, answer as well in destroying putrid particles in the atmosphere; but, for the purpose of inhaling, is by no means so efficacious as the nitrous vapour. As pure air is of great consequence to the patient, the fæces should be received into a pot with some vinegar in it, and immediately conveyed from the chamber.

The spirits of the patient should be supported by inspiring a confidence of recovery, and by keeping from him every thing that is likely to depress them, as funerals, passing-bells, and the fatality of the disease in the neighbourhood, particularly to a friend. Even charms might be used with good effect, by the confidence they inspire, or by their engrossing the attention of the mind. Aretæus, fully sensible of the necessity of supporting the strength of the system in general, and how much this depends on the spirits, expressly counsels the patient "to be of good heart; and advises the physician to entertain him with such discourse as might tend to encourage his hopes of recovery." Hope and confidence are as necessary for the prevention as the cure of fevers attended with general nervous irritation.

Practical Remarks. — The first stage being highly inflammatory, the treatment must be regulated by the symptoms and

the constitution. As the result depends on the degree of irritation it produces in the cerebral system (brain and nerves), it is of great consequence to lessen the violence of the inflammatory stage; and for this purpose, in a plethoric habit, the extraction of blood may prevent much mischief; but this is a remedy which may endanger the life of the patient, if the powers of the system have in any degree given way; for when the sloughing process has commenced in the fauces, the recovery of the patient will depend on the natural strength of the body. Cold water applied to the head, and even to the surface of the body, if the skin be dry, is a very important remedy, and should be frequently employed. — (*See* ANTISEPTICS, p. 11.)

REMITTENT FEVER. — (*See* INTERMITTENT FEVER, p. 368.)

OF RHEUMATISM. — This disease commonly occurs in autumn and spring, and seldom in winter or summer, unless the vicissitudes of heat and cold be sudden and frequent. In a plethoric habit, or when attended with fever or super-irritation, it is called *acute* or *inflammatory rheumatism*; and when with sub-irritation, *chronic rheumatism*.

OF INFLAMMATORY OR ACUTE RHEUMATISM. — SYMPTOMS. — This species commences with the usual symptoms of fever, accompanied with pain, swellings, and redness of the joints, generally of the knees, hips, ankles, shoulders, elbows, and wrists, while the smaller joints of the toes and fingers are seldom affected. The *fever* rarely continues violent more than *fourteen* days, although sometimes the *pain* keeps shifting from one joint to another for some weeks. The pain and sometimes the fever is much increased in the evening, and the former, during night, is often acute. As the pains become fixed, the fever generally abates.

Rheumatic inflammatory excitement is generally considered a *peculiar* inflammation; but the peculiarity of it, probably, arises from the peculiar structure of the parts, *viz.* membranes and ligaments, or fascia, in which it always occurs.

CAUSES. — It is produced by exposure to cold, when the body is unusually warm, or by its *partial* application, or from a *continuance* of cold, as wet clothes, &c.

TREATMENT. — The first object in the treatment of this disease is to abate the constitutional fever; for as long as the febrile symptoms run high, all topical applications will prove unavailing. For this purpose, particularly if the patient be of a plethoric habit, general blood-letting will be proper, and afterwards the occasional exhibition of the Purgative Mixture (A), p. 113, after the due operation of which the Antimonial Wine may be exhibited, to excite or keep up perspiration, as directed page 66. If

the pain be very severe, the following draught may be taken at bed-time: —

Take of Tartarised Antimony Wine,	-	30 drops.
Liquid Laudanum, -	-	15 drops.
Camphorated Julep, No. 23,	-	1 ounce.
Mix.		

Half a pint of *weak* white-wine whey should be taken in about an hour after this draught, to promote its sudorific operation, and the Antirheumatic Mixture (A or B), p. 110, may be taken every four or five hours during the day-time, in order to keep up its effects. The draught may be repeated every night till the symptoms are considerably abated. If the inflammation run high, the application of leeches to the parts most affected will be necessary. When the fever is abated, and the pains become fixed, the parts should be well rubbed with the cajeput liniment. In case the pain and inflammation continue obstinate, the use of the warm vapour bath once in twenty-four hours, and blisters to the parts affected, will prove powerful auxiliaries to these remedies.

Opium, in the dose of one grain, three times a day, is often very beneficial in acute rheumatism; but the loss of the blood, and the use of aperient medicines, should be premised. Exposure to cold should be avoided, and a low diet observed. Common whey, taken warm, affords an excellent medicinal beverage.

The tincture of the seeds of the meadow saffron, in the dose of twenty-five to forty drops twice a day, in two table-spoonsful of the camphorated mixture, has lately been much extolled as a specific for acute rheumatism by Dr. Williams, and other respectable physicians; and the results of the numerous trials I have given it, confirm the reports they have made of it. The operation of acupuncturation, which consists in puncturing the part affected with a fine needle, has been lately much recommended as a speedy and effectual means of curing acute rheumatism. This treatment being more applicable to the chronic species, I shall particularly notice it among the remedies for that disease.

Galvanism or Electricity, a very popular remedy for chronic rheumatic complaints, by increasing fever, is uniformly hurtful in the acute species. — (*See* GALVANISM and ELECTRICITY, pages 169, 170.)

In the 49th number of the Monthly Gazette of Health, cold bathing and friction with ice are much recommended by a respectable practitioner, in cases of inflammatory rheumatism, and this treatment I have known to succeed in a few instances which resisted other remedies.

OF CHRONIC RHEUMATISM. — SYMPTOMS. — When the febrile symptoms, together with the swelling and redness of the joints attendant on acute rheumatism have entirely abated *, and the pain still continues to affect certain joints with stiffness or uneasiness of motion, on change of weather, the disease is termed *chronic rheumatism*, which often continues a length of time. The joints most surrounded by muscles, and the parts that are most concerned on bodily exertion, as the hip and the loins, are commonly the seats of this complaint. When it affects the hip joint, it is named *Sciatica*; and when situated in the loins, *Lumbago*.

TREATMENT. — The indications of cure are nearly opposite to that of the *acute* or *inflammatory* species; the latter being attended with inflammatory excitement of the system, and the chronic with diminished vitality or debility. The energy of the system should be roused by a warm stomachic medicine, as the Anti-rheumatic Mixture (B), p. 110, and the parts affected stimulated by electric sparks, the Stimulating Liniment (A), page 124; friction with the Galvanic Brush, p. 158, and the application of flannel. If these means prove ineffectual, the application of a blister, or the Anti-rheumatic Plaster, p. 129, will be necessary. The warm bath, gradually raised from 100 to 120 (Fahr.), may likewise be employed with advantage.

If the system be in a very debilitated state, or if the stomach do not perform its office, a drachm of the essential salt of bark, or extract of rhatany root, may be added to the anti-rheumatic mixture, and a little of the farina of the Jamaica ginger may be taken in the common drink. The diet should be generous, and the common beverage the spirit of juniper (commonly called gin), diluted with water.

If the disease be attended with emaciation, and particularly with an exacerbation of pain in the evening, or during night, two of the following pills may be taken twice a day, with a quarter of a pint of the compound decoction of sarsaparilla:—

Take of Prepared Calomel, - -	12 grains.
Gum Guaiacum, - -	1 drachm.
Extract of Poppies, - -	½ drachm.
Golden Sulphur of Antimony, -	1 scruple.

Mix, and divide into thirty pills.

A decoction of the leaves of the oleander or rose-bay, in the dose of a wine-glassful three or four times a day, has been highly recommended as a remedy for *chronic* rheumatism. This decoction is made by gently boiling half an ounce of the leaves in a pint of water, till reduced to three quarters of a pint. It will be advisable to begin with the small dose of a table-spoonful at

* The period of *acute* rheumatism seldom or ever exceeds forty days; after which, if the pain continue, it may be pronounced *chronic*.

first, and to increase it gradually till it arrives to a wine-glassful.

Dr. Balfour of Edinburgh has lately recommended a practice which has been, for many centuries, employed in the East Indies and in China, in the cure of chronic rheumatism; viz. to pommel and rub the affected part with a hard but smooth substance. Admiral Henry has long adopted this mode of treating rheumatism on his own person, and, by perseverance in it, he succeeded in destroying the disposition in his habit to it, and also to gout, to which he had been for many years subject. In the 12th number of the Monthly Gazette of Health, a hammer made of box is recommended both for pommelling and rubbing the different parts of the body affected with rheumatism.

The application of flannel rollers to the affected parts in the same manner as in fractures, has been lately highly extolled as an auxiliary remedy, in cases of chronic and acute rheumatism, and I have met with cases of both affections, in which it proved very beneficial.

Dr. Gales of Paris, and Mr. Green of London, speak highly of the effects of sulphureous fumigation to the whole body, as a certain remedy for rheumatism and gout. The Doctor lately sent me the apparatus constructed by him for applying the fumigation to the author, which Mr. Green has improved. In chronic rheumatism of long standing, and in leucophlegmatic constitutions, or languid habits, it has proved beneficial; but in irritative rheumatism, it has uniformly aggravated the disease, and greatly injured the general health.

The practice of the Japanese of introducing the point of a fine thin needle to the seat of the disease, termed acupuncturation, has lately been employed in this country by Mr. Churchill, with great success. The puncture is made with such celerity as not to occasion any pain; and the relief it affords is instantaneous, and generally permanent. As the operator should be acquainted with the anatomy of the part, to avoid injuring a principal branch of a nerve or of a blood-vessel, it cannot be safely employed in domestic medicine. The principle on which this treatment allays pain is not clear. If it excited irritation, it might be said that it acts on the principle of counter-irritation, *i. e.* the artificial counteracts rheumatic irritation. The immediate relief and the very pleasant sensation the operation occasions, have induced some to suppose that the needle facilitates the escape of a subtle fluid, nervous or galvanic, with which the nerves were overcharged. The idea that galvanic fluid is conducted from the brain by means of nerves is not correct, for the nerves are certainly not better conductors of electric or galvanic fluid than the muscles, or any other part of the body.

When rheumatism occurs in a gouty subject, being always obstinate and painful, the excitement is a compound of both maladies, and I have therefore termed it *rheumatic gout*. In gouty subjects, in consequence of the morbid irritability of the nervous system, all diseases run high, and prove obstinate, particularly of tendinous or membranous parts. When rheumatism occurs in a gouty subject, the alcaline tincture of the colchicum seeds, in the dose of thirty to forty drops, twice a day, is a valuable medicine. It may be taken in camphorated julep, or the Tonic Mixture, p. 115, as the state of the stomach or general health may indicate. As this medicine evidently diminishes the vital powers, it should be employed only as an anodyne to allay pain or abate its violence, and when it has produced this effect, it should be discontinued, more especially if the constitution be languid, or if it evidently depresses the spirits.

PREVENTION. — Cold bathing, and the use of flannel next the skin, are the most effectual means of preventing the recurrence both of chronic and acute rheumatism.

DISTINCTION. — Rheumatism may be distinguished from gout by not being *preceded* by pain in the stomach, symptoms of indigestion, and cramp of the extremities; by being seated in the *larger* joints, while the gout affects principally the *smaller* ones; occurring at an earlier period of life; *not* being *hereditary*, and, in general, can be traced to some exciting cause, particularly the action of cold. It is exceedingly difficult to distinguish rheumatic pains from those produced by deep-seated inflammation; and from the latter being mistaken for the former the most serious consequences have ensued, particularly when situated in the loins or hip joint; the stimulating applications, as electricity, &c. employed for the cure of rheumatism, increasing the inflammation, and occasioning extensive suppuration, which generally terminates in death. Such mistakes have happened even in regular practice; and, through the imprudent use of quack medicines, such terminations are very frequent. Lumbar abscess, a very formidable disease, begins with pain in the loins, resembling lumbago; and the only chance the patient has of recovery, in such case, is the prevention of the formation of matter. In all *doubtful* cases, therefore, the application of a blister, cupping, and the use of the ammoniated tincture of colchicum seeds, or the following diaphoretic medicine, should be employed instead of the *stimulating* plan recommended for chronic rheumatism: —

Take of Camphorated Julep, No. 28,	-	5 ounces.
Mindererus's Spirit, No. 10,	-	3 ounces.
Sweet Spirit of Nitre, No. 15,	-	3 drachms.

Mix: three table-spoonsful to be taken every four or five hours.

(*See* DIAPHORETICS, p. 23, ALTERATIVES, p. 3, and AMMONIATED TINCTURE of COLCHICUM SEEDS, p. 149.)

OF RICKETS. — This disease is peculiar to infancy, seldom appearing after the third year, or before the ninth month, but generally in the intermediate time. The first symptoms are an enlargement of the head, face, and belly; while the other parts of the body diminish in bulk, except the joints of the hands, arms, knees, and feet, which become irregularly tumefied. The bones lose their solidity, so as to give way to the weight of the body; hence the limbs which support the body, as the legs, thighs, and back-bone, become crooked and distorted, and the child of course walks with more and more difficulty, and sometimes it entirely loses the use of its feet. The veins of the neck, and those that surround the large joints, are generally much distended, while those of other parts of the body appear in a diminished or contracted state; the countenance is lively, the cheeks full, and often florid, and the faculties of the mind sometimes impaired, but more frequently it possesses a premature acuteness of understanding. As the disease advances, the sides of the chest become flattened, the breast-bone elevated, often in a point, and the ends of the ribs knotty; the teeth generally come forward at a late period, and soon turn black and decay, or become loose and fall out; the pulse is quick and feeble; the appetite sometimes good, but the digestion evidently bad, being frequently attended with flatulency and vomiting of an acid matter.

This disease seldom proves fatal, unless fever, consumption of the lungs, or obstruction of the mesenteric glands, supervenes: but, after the fourth or sixth year, the child generally gains strength, and the bones of the legs, though very crooked, often become straight as it grows up, while the distortion or the curvature of the back-bone frequently increases.

CAUSES. — From the frequency of this disease in marshy countries, a moist atmosphere has been noticed by medical writers as a *predisposing* cause. Some attribute it to bad nursing, the use of acescent food, and whatever may tend to debilitate the body; others, with less probability, have attributed it to scrofula, or venereal taint in the parents. In those who have died of the disease, the mesenteric glands, the liver, and lungs, have been found enlarged, and the bones nearly destitute of the earthy matter which gives them firmness and shape.

Dr. Bobba, of Italy, some time since presented to the Medical Society at Paris some remarks on the cause of rickets. The bones owing their solidity to phosphate of lime, he ascribes the cause of rickets to a want of this substance: but whether the phosphate of lime be entirely wanting in the system, or the vessels destined for its disposition in the bones be too weak to perform their office, the doctor does not take upon himself to determine.

In my late treatise on regulating the stomach and bowels, in different temperaments, I have given a long chapter on the means of correcting the constitution which favours rickets, the production of worms in the intestinal canal, and obstruction of the mesenteric glands.

TREATMENT. — The first object to attain towards the cure of this disease, is a proper digestion of the food; for which purpose it will be necessary to clear and to empty the intestinal canal by an active dose of the basilic powder, after which a dessert or table-spoonful of the following mixture may be given three times a day:—

Take of Extract of Rhatany Root,	-	1 drachm.
Dissolve in Lime Water,	- -	6 ounces.
Then add Alkaline Liquor of Iron,	-	3 drachms.
Tincture of Cardamom Seeds,	-	½ ounce.

If the fæces should continue pale after this medicine has been taken a week, a grain of calomel should be given every or every other night in a little currant jelly or sugar; and if the bowels should not be relieved twice, or at least once a day, the basilic powder should be repeated. The alterative dose of calomel should be continued every other night for a week, or till the stools become of a proper yellow appearance.

After the disordered state of the digestive organs is corrected, cold bathing may be employed, for the purpose of strengthening the nutrient vessels of the body.

If, notwithstanding these remedies, an acidity continue to prevail in the stomach, which is frequently the case, the emetic of ipecacuan powder should be repeated, and the patient should, besides the mixture, take the Prepared Natron, as directed, p. 96; and when the symptoms of indigestion have subsided, the mixture need not be taken more than once a day (about an hour before dinner). The limbs and even bowels should be well rubbed every night and morning with a flesh-brush, flannel, or a warm hand.

The plaster of the carbonate of iron, spread on calico, applied round the tumefied joints, has lately been much recommended by a physician in Germany, and, in many instances, I have found it to prove very beneficial. I have also applied it to the tumefied bowels of rickety children, with the most decided advantages, which I attribute chiefly to its mechanical support, and to a slight degree of irritation it keeps up in the skin.

If the bones of the lower extremities be curved, they should be supported by instruments, so made as to take off the weight of the body, by sustaining the pelvis, and at the same time to produce a slight pressure on the *distorted* parts. If the child be a female, great care should be taken that the instrument does

not compress the bones of the pelvis. Many a case of distorted pelvis has no doubt been produced by the pressure of improper instruments. Some practitioners discountenance the use of instruments in the curvature of the bones of children; but as they cannot produce mischief when properly made, I think it would be more prudent to employ them, when the bones of the legs or thighs have evidently given way. For mere enlargement of the knees, they are certainly unnecessary.

The want of solidity in the bones arising from a deficiency of the phosphate of lime, Dr. Bobba recommends the phosphate of lime to be administered internally, in order to supply it to the blood; but the disease is not the consequence of a deficiency of the phosphate of lime in the system, but the debility of the vessels whose office it is to deposit it in the substance of the bones.

The tincture of the muriate of iron, in the dose of five drops twice a day, in a little water, was a very favourite remedy with the late Dr. Clarke in cases of rickets and flaccidity of the skin and muscular system of children. —The alcaline liquor of iron, in the dose of thirty drops, is a more efficacious remedy, particularly when acidity prevails in the stomach; it may be administered in lime water.

The Peruvian bark is much recommended as a strengthening medicine in cases of rickets. It is not so efficacious as the mixture of rhatany and lime water noticed above. The use of an issue in cases of rickets is much to be doubted. The discharge cannot be beneficial, but, by increasing the debility of the frame, is very likely to prove injurious. It is, at any rate, too ambiguous a remedy to employ in domestic medicine.

Exercise being of great importance in the treatment of rickets, the child should be well tossed in the arms of an athletic nurse; and when she is tired, it should be put to roll and stretch its limbs on a carpet, instead of being rocked to sleep in a cradle, or put to sit and amuse itself with toys. A lively nurse, who will do her duty out of the sight of the parents as well as in it, will be of much greater service in establishing the health of a rickety child than even the most powerful tonic medicines. Nothing strengthens the digestive organs of children more than exercise; and if they have not their due share of it, indigestion and other diseases will be the certain consequences.*

The diet of rickety children should consist of a proportionate combination of animal and vegetable food, such as broth, chicken, veal, and bread or rice pudding; and the animal and

* It is worthy of notice, that in manufacturing towns, where mothers do not allow themselves time to exercise their children, rickety complaints are most prevalent.

vegetable jellies, as those of arrow-root, sago, and hartshorn shavings*, as directed page 93, and the beverage chiefly pure water. A teacupful of good fresh milk, with a table-spoonful of lime water, given two or three times a day, is very beneficial in this complaint.

In the 91st number of the Monthly Gazette of Health a correspondent states that she evidently saved the lives of three children, by adding a little lime water to all the articles of diet which would admit of it, as tea, milk, puddings, &c. It not only promotes digestion, but keeps down that irritation of the intestinal canal, which occasions rickets. Prior to the adoption of this practice, she lost four children of rickets, and bowel complaints.

Malt liquor, weak wines of all sorts, vinegar, tea, and unripe fruit, should be particularly avoided.

If the child be affected with difficulty of breathing, or cough, flannel should be worn next the skin. — (*See* CLOTHING OF CHILDREN, and Treatment of the LEUCOPHLEGMATIC, VERMINOUS, and RICKETY TEMPERAMENTS, pp. 248 to 264, of my Practical Dissertation on the Means of Obviating and Treating the Varieties of Costiveness.)

OF RUPTURE. — This complaint consists in the protrusion of some part of the contents of the belly, forming a soft compressible tumour, generally occurring in the groin.

CAUSES. — Whatever diminishes the cavity of the belly, by forcing the bowels out of their natural situation, will produce this disorder, such as excessive laughing, sneezing, an impregnated womb, and sudden and violent exertions. The fashion of wearing the waistband of the breeches high up and tight round the waist, by pressing down the bowels, is one cause of the unusual frequency of ruptures in England of late years.

TREATMENT. — All that can be done towards the cure of a rupture, is to replace the prolapsed parts into the cavity of the belly, and to prevent them from slipping out again: the surgeon has then done his part, and the rest is nature's. For the purpose of retaining the bowels in their proper situation, after reduction, different bandages are employed, according to their seat. When the rupture is situated in the groin, or scrotum, an instrument, termed a truss, has generally been applied: which, if not properly constructed, by producing an *unequal* pressure over the aperture through which the bowels protrude, will occasion much mischief, by suffering a small portion of the

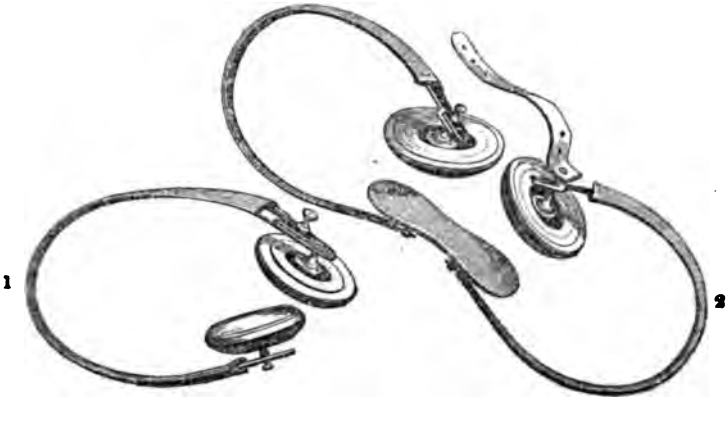
* The jelly produced by boiling the prepared shavings of ivory is more nutritious than that from hartshorn shavings, and when combined with the jelly of the arrow-root, forms a most nourishing diet for rickety or weakly children.

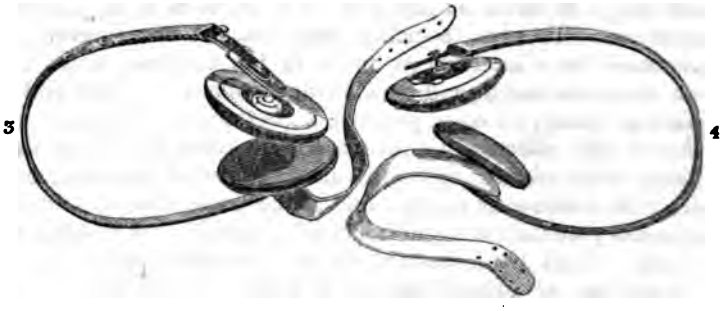
bowels to get between the pad and the bone, so as to be pinched or contused. To obviate such a serious occurrence, several improvements have lately been made in the common truss, by which, from the length and peculiar formation of the pad, and a regulating spring, an equal pressure is produced, and the descent of the bowels effectually prevented. In consequence of the elasticity of the *circular* spring, its use is attended with no inconvenience in walking or riding; and at the same time admitting of a rotatory motion, the pad is not displaced by any position of the body. This truss (termed Patent Self-adjusting Truss) is the invention of Messrs. Salmon and Ody, of No. 292, in the Strand, London. A principal advantage of this invention is, that it is not encumbered with understraps or bandages, which, during walking, are often productive of much irritation and inconvenience. The following drawings and instructions will explain the mode of application in different cases.

The cases to the springs, the back and front cushions, and their cases, are all made so as readily to take on and off to be repaired or cleaned; and additional sets of these may be had at the manufactory at a small charge.

The size of the springs may be readily increased or decreased, so as exactly to fit the body, which adjustment should be attended to, in order to secure a pleasant and proper effect.

The force or pressure of the truss is such, that the main spring alone is sufficient for common complaints; but persons with bad ruptures sometimes require additional springs, which are given with each truss. Although this may happen in the first instance, it is in such cases recommended to all persons, that as soon as they do properly keep up the bowels, the pressure should by degrees be diminished.





No. 1. Patent Opposite-sided Single Truss.
No. 2. Patent Double Truss.
No. 3. Patent Truss for Femoral Hernia. The measure for this truss is taken the same as the opposite-sided truss (the circumference of the body one inch below the Christa Ilii); but it is necessary to know the side on which the complaint is situated, this truss being applied on the same side.
No. 4. Patent Truss for Umbilical Hernia. The measure, the whole circumference of the body taken in a line with the navel.

An accumulation of fæces in the intestines of a ruptured person is not only a common cause of strangulation; but the distention of the bowels, and particularly of the protruding portion of the intestines, by a disengagement of gas, which generally accompanies it, is always very distressing. Strangulation of the protruding part being a most serious occurrence, ruptured persons should be very particular in keeping their bowels in a regular state, and to guard against distention by full meals, or a free use of a vinous liquor.

Active purging in cases of costiveness, by hastening the fæces into the protruding portion of the intestine, having brought on strangulation, it is more prudent to guard against accumulation by obviating costiveness, than to have recourse to a powerful cathartic to remove it. For the purpose of keeping the bowels in a regular state, and expelling gas, two or three of the following pills may be taken once or twice a day, so as to produce one or two evacuations daily:

Take of the Alcaline Extract of Jalap, - 1 drachm.
Peruvian Balsam, - - - ½ drachm.
Dried Subcarbonate of Soda, - 1 scruple.
Mix, and divide into thirty pills.

If the patient be subject to indigestion, half a drachm of the extract of fumitory may be added to the above prescription, and the mass divided into thirty-six pills. If the costiveness has existed two or three days, and the intestines are evidently overloaded, a stimulating lavement, as half a pint of infusion of senna with a large table-spoonful of Epsom salt, may be administered

lukewarm. In cases of spasms, the warm-bath is an important auxiliary to an aperient medicine. When a rupture is strangulated, no time should be lost in having recourse to surgical advice.—(*See* PURGATIVE PILLS (B), p. 117, and PURGATIVE CLYSTER, p. 103.)

When the contents of the tumour cannot be returned, attended with much pain in the part, or in the bowels, with nausea, vomiting, restlessness, fever, and no discharge by stool, a strangulation of the protruded parts may be suspected, in which case surgical aid should be procured without delay, the life of the patient being endangered by approaching inflammation; and if the confined parts be not soon liberated, mortification and death will probably ensue.

Since the publication of the last edition of this work, the constant application of a solution of alum in a strong decoction of oak bark (two drachms to a pint) has been much recommended by some surgeons, for the radical cure of rupture in the groin. It is directed to be applied by means of fine soft linen, which should be re-wetted as soon as it becomes dry. In incipient cases this topical remedy, by constringing the part, may succeed in preventing the escape of intestine or omentum through the abdominal ring. The compress should for some time be kept on the part by a truss with easy springs.

OF ST. ANTHONY'S FIRE, OR ERYSIPELAS.—The plethoric and young are most subject to this disease; and after being once afflicted by it, are very liable to future attacks.

SYMPTOMS.—It comes on with cold shiverings, and other symptoms of fever; the hot fit is generally attended with great affection of the head, as drowsiness, confusion, and often delirium. The redness of the skin appears after the first or second, and sometimes the third day of the fever, generally on the face, gradually spreading over the neck and scalp of the head, which becomes turgid, and the eyelids often so swelled as to close the eyes entirely. The redness is attended with considerable heat, and disappears on slight pressure of the finger, but quickly returns on removing it. Soon after, blisters of larger or smaller sizes commonly appear, containing a clear watery fluid, of so ichorous a nature as to inflame the skin over which it is discharged. Sometimes the inflammation first appears on the legs, which are apt to become considerably tumefied. The disorder increases for two or three days, and continues at its height for two more, when it abates, and soon terminates in a falling-off of the diseased scarf-skin, in large scales; but sometimes the delirium increases, and inflammation of the brain intervenes, which, about the seventh, ninth, or eleventh day, often ends fatally.

CAUSES. — Some writers suppose that this disease is dependant on a preternatural saline state of the blood, and others contend that the nerves only are in fault. The former idea is much strengthened by the fact which chemical examination has established, that the serum of the blood of such patients is overcharged with muriate of soda. Whatever is capable of disturbing the brain and nervous system during the existence of an excessive saline condition of the blood (which in some subjects is constitutional) will bring the disease into action.

TREATMENT. — The brain, in this disease, is always more or less disturbed. When the patient does not complain much of head-ache, the occasional use of the Purgative Mixture (A), p. 113, with twenty-five drops of antimonial wine at bed-time, in a little *weak* white-wine whey, will be sufficient. The diet should be low, and the drink chiefly barley-water, acidulated with tamarinds. But when the head is much disordered, the feet should be put into warm water for ten or fifteen minutes, and a blister applied to the nape of the neck. If these fail to afford relief, and the person be of a plethoric habit, the loss of eight or ten ounces of blood from the arm will likewise be necessary. If, notwithstanding these remedies, the affection of the brain should increase, and the patient become delirious, the head should be shaved, and a large blister applied to the scalp, and mustard poultices to the feet.

As an alterative, the Sulphureous Purgative Salt, p. 152, has been found very beneficial in this disease. The dose is from one to two drachms, dissolved in a quarter of a pint of water.

The prepared ammonia, in the dose of five or six grains two or three times a day, dissolved in water, has lately been much recommended by Dr. Peart, as a remedy for erysipelas, and it appears in many instances to have proved beneficial. The decoction of Peruvian bark, with the diluted sulphuric acid, is directed by some eminent practitioners to be given on the commencement of the disease; but the propriety of administering such medicines must depend on the state of the constitution. If there be considerable determination of blood to the head, attended with confusion of mind and delirium, no experienced practitioner would venture on their exhibition. When this disease proves fatal, it is generally by the mischief the brain sustains; the object of practice is, therefore, on the first attack, to check the velocity of the blood to the head, and to quiet the system, and particularly the mind. The symptoms of sub-irritative fever, termed typhus, which so often attend the latter stage of the disease, or appear a few days before dissolution of the patient, are merely the consequences of the affection of the brain.

The diet should be low, and consist principally of vegetable jellies; wine and stimulants should be avoided, unless the debility or sinking state of the patient indicates their use.

Great caution is necessary in the application of external remedies; as, by the imprudent use of repellents, inflammation of the brain has been produced. Fine oatmeal may be sprinkled over the parts, for the purpose of absorbing the discharge; but in case of much heat and dryness, cabbage leaves stripped of the stems, softened before the fire, or by immersion in boiling water, will answer best.

In people predisposed to erysipelas, from a preternatural saline quality of the blood, inflammatory complaints generally run high. Inflammation or morbid discharges from secreting surfaces also prove very obstinate, as catarrh, inflammation of the eye and throat, gleet, and fluor albus. In females of this constitution, fluor albus is generally attended with a degree of inflammation, which might induce an inexperienced practitioner to suspect it to be of a specific nature. Medical men should therefore be very cautious in giving a decided opinion in such cases. For the purpose of correcting the erysipelatous habit, the treatment recommended for indigestion should be adopted, and persisted in for several weeks. In obstinate cases, a grain of calomel may be taken every night for a week. For breakfast and supper, the Sassafras Nut, p. 157, will prove an excellent auxiliary.

Notwithstanding the great danger that always attends the use of external applications in this disease, empirics are bold enough to assert, that by the use of their lotions it may be infallibly cured. I was some time since requested to see a young lady, afflicted with erysipelatous inflammation, who, from the use of an advertised remedy, was attacked with inflammation of the brain; and had she continued its application one day longer, it would probably have cost her her life. This *innocent* composition, as it was represented to be, on examination, proved to be a solution of corrosive sublimate of mercury combined with lead!

In my late Practical Dissertation on the Means of regulating the Stomach and Bowels in different Temperaments, and Predispositions of the System, I have given full directions for correcting the erysipelatous habit.

OF SAINT VITUS'S DANCE. — This is a convulsive disease, principally attacking children from ten to fourteen years of age.* It first shows itself by a lameness, or rather unsteadiness of one of the legs, which the patient draws after him like an

* Dr. Rotherham observes, that he has seen this disease in a robust man of forty-two. This patient, after various ineffectual remedies had been used, was cured by strong electrical shocks, directed through the whole body.

idiot. It afterwards affects the hand, on the same side, so that if a glass of liquor be put into it to drink, before the patient can get it to his mouth, he uses a great number of odd gestures, through the hand being drawn different ways by the convulsive action of the muscles, in consequence of which he is not able to carry it in a straight line; and as soon as it has reached his lips, he often throws it suddenly into his mouth, and drinks it very hastily, as if he only meant to divert the spectators. The will of the patient seems often to yield to these convulsive motions as to a propensity, and thereby they are often increased, while the person affected seems to be pleased with increasing the surprise and amusement which his motions occasion to the bystanders. After it has continued some weeks, the intellectual powers of the brain are weakened, evinced by confusion of mind, and often amounting to idiotism. Females are most subject to this complaint.

CAUSES. — This disease arises from an increased irritability of the nervous system, which is often produced by some irritation in the stomach and intestines; as that of worms, and sometimes by violent passions and perturbation of mind. In females, at the period of puberty, it probably arises from the same causes as hysterics.

TREATMENT. — The irritation of the cerebral system (brain and nerves) being generally symptomatic of a disordered state of the digestive organs, or kept up by irritation in the stomach or intestines, it will be proper to commence the cure by a purgative dose of the basilic powder; after the due operation of which, the Nervous Mixture (C), p. 113, may be administered; to each dose of which, if the disease continue obstinate, from fifteen to twenty drops of the ammoniated tincture of colchicum seeds may be added.

If the complaint be attended with pain in the head, a blister should be applied to the nape of the neck, and the feet kept warm by the use of flannel socks; and, if there be evidently too great a determination of blood to the head, which is often the case when attended with a suppression of the menses, the extraction of blood from a vein in the arm will also be necessary.

When the symptoms have abated, cold bathing every morning (if it do not alarm the mind) will prove of great advantage; and, with the use of the muriated tincture of steel, in the dose of ten or fifteen drops, in a glass of cold valerian and camomile tea, will probably complete the cure: if the patient have not sufficient resolution to go into the cold bath, cold water may be applied every morning to the head. The basilic powder should be repeated two or three times a week, till nine or twelve doses have

been taken; for if the nervous system be disturbed by the irritation of worms in the stomach or intestines, it will effectually dislodge them; and if the stomach and intestines are in fault, which, in ninety-nine instances in a hundred, is the case, the frequent exhibition of such a purgative will probably remove the cause. If this treatment fail of affording relief, the cure should be attempted in the manner directed for epilepsy, a disease to which it is nearly allied.

When the circulation is languid and the skin pale, electricity has proved of great advantage; but when it is plethoric, or the pulse quick, it has aggravated the symptoms by irritating the brain, and increasing the determination of blood to it.

The Anthelmintic Electuary, p. 107, has been successfully exhibited at the Hereford Infirmary, in many cases of this disease. The good effects of this remedy are attributed to its mechanical operation on the inner coats of the stomach and intestines, occasioning them to throw off redundant slime. With this view I have given the granulated tin, in many diseases of children in which the stomach and bowels were disordered, with the most decided advantage. The diet should be regulated according to the strength of the patient: if plethoric, a low diet should be observed, and wine and stimulants avoided; on the contrary, if the body be much debilitated, a nutritious diet should be employed; but, even in this case, wine and stimulants should be allowed with great caution.

The sub-acetate of lead is also a very valuable remedy for this disorder, given with a tonic medicine, as the following form: —

Take of Sub-acetate of Lead, -	7 grains.
Extract of Rhatany Root, -	2 drachms.
Dissolve in eight ounces of water, and	
Add Tincture of Cardamom Seeds,	6 drachms.

Two table-spoonsful to be taken three times a day.

The sub-acetate of lead is a very powerful medicine, and should in no case be employed internally without the attendance of a practitioner in medicine.

In the Monthly Gazette of Health, the tincture of the root of the meadow saffron is much recommended by Dr. Alderson, and some cases are published, in which it is said to have succeeded in restoring the patients to health in a short time. In the trials the author has given it, this remedy has completely failed.

The Prussic acid, in the dose of one drop in cold camomile tea, twice a day, has been successfully administered in a few cases. By allaying nervous irritation, it is generally beneficial for a short time, but when it fails to quiet the nervous system, I have always found it to act injuriously by disordering the stomach.

The treatment of this disease, like most others, must be regulated both with regard to medicine, diet, and exercise, according to the state of the system. If the patient be of a plethoric habit, preparations of iron and other tonic or stimulating medicines, electricity or a full diet, would be highly improper. If, on the contrary, the system be in an opposite state, or what is termed leucophlegmatic, tonic medicines and a generous diet will be proper, unless there be a determination to the head or lungs. — (*See* NERVINES, p. 37, and ANTISPASMODICS, p. 12.)

OF SCALD HEAD. — The whole of the hairy scalp is subject to this well-known disease. When attended with a discharge, it is often so acrimonious as to cause swellings of the lymphatic glands of the neck.

TREATMENT. — On the *early* appearance of this disease, it will only be necessary to cut the hair short in the places affected, to remove the scabs, and rub a little of the following ointment well over the parts: —

Take of the Citrine Ointment, - -	3 drachms.
Olive Oil, - - -	1 drachm.

Mix in a glass mortar.

When the disease has been neglected, the head should be shaved; after which the scalp should be well washed with soap and water, till the scales and matter be nearly removed, when the Alterative Ointment (A), p. 127, should be *well* rubbed over the affected parts every night and morning, by means of a piece of soft leather.

The ointment remaining on the scalp should be removed every morning, by first rubbing some olive oil over it, and afterwards washing it with soap and water, by means of a piece of flannel. If the disease appear to be more obstinate in one part than another, the hair of the part should be eradicated by degrees. During the use of this ointment, a cap made of oiled silk should be worn. When the virulence of the disease is abated, the cure may be completed with the citrine ointment and olive oil, as above directed; and, even after it has entirely disappeared, it will be necessary to wash the scalp once or twice a day with soap and water, or a decoction of tobacco, till the hairs begin to grow on the parts that have suffered, which may be considered a proof of the disease being destroyed. If fresh scales should continue to form, washing the part with lime-water, or a strong infusion of the leaves or bark of the fir tree, will succeed in completing the cure.

In the fifteenth number of the Monthly Gazette of Health, the following liniment is highly extolled as a remedy for scald head: —

Take of Olive Oil, - - - 2 drachms.
Spirit of Turpentine, - - 6 drachms.
Mix. — To be applied every night and morning, by means of a camel-hair pencil, after washing the part gently with soap and water.

When this disorder occurs in a scrofulous habit, it is generally extremely difficult to cure. In such cases the treatment recommended for scrofula will also be necessary to correct the constitution, except the internal use of mercury, which will not be requisite, if the citrine ointment be well rubbed over the scalp.

If it should resist these remedies, the part may be well washed every morning with the following solution: —

Take of Sulphate of Copper, - - ½ drachm.
Elder-flower Water, - - ½ pint.
Or 30 drops of the saturated Solution of the Nitrate of Copper may be added to an ounce of the Citrine Ointment. The latter composition is much recommended in the Gazette of Health for this disease.

Although this disease is apparently confined to the scalp, it will, in all cases, be proper to attend to the constitution, and particularly to the digestive organs, and to guard against acidity in the stomach, by the use of the carbonate of soda. If the stomach be disordered, an emetic of ipecacuan powder, and a full dose of the basilic powder, will be necessary; and, afterwards, from fifteen to twenty-five drops of the tincture of iodine, in a wine-glassful of the decoction of marshmallow root, may be taken twice a day. If the patient be of a full habit of body, a solution of the Sulphureous Purgative Salt should be taken, as directed page 152; but if he be of a weakly or leucophlegmatic habit, a tonic medicine will be proper, as the following: —

Take of Decoction of Peruvian Bark (p. 133), ½ pint.
Tincture of Muriate of Iron, - 40 drops.
Mix. — Two table-spoonsful to be taken two or three times a day.

If the affected parts be in a state of great irritation, or attended with inflammatory excitement, it will be proper to commence with an anodyne alterative ointment, and to continue it till the irritation or inflammatory excitement be subdued, as the following: —

Take of Prepared Calomel, - - 1 ounce.
Prussic Acid, - - - 10 drops.
Solution of Acetate of Morphine, 40 drops.
Flowers of Zinc, - - ½ drachm.
Spermaceti Ointment, - - 1 ounce.
Mix.

The diet should consist of a proper proportion of vegetable and animal food, and pure or distilled water used for the common beverage.

OF SCARLET FEVER.—SYMPTOMS. — This fever begins with chilliness and shiverings: soon after which, the surface of the body is covered with partial inflammations, *more numerous, larger*, and *redder*, than those of the measles. In two or three days they disappear, succeeded by scalings of the scarf skin, like bran dispersed over the body, which fall off and appear again two or three times successively.

CAUSES. — Some writers suppose that this fever is occasioned by a peculiar contagion, and that it is infectious. It appears to be produced by some atmospheric cause, and is, therefore, generally epidemic.

TREATMENT. — This disease is generally so mild as to require little else than to observe a low diet, and to avoid a cold air and cold drink. If the bowels be confined, the Purgative Mixture (A), p. 113, may be taken, and repeated occasionally; and, if the feverish symptoms run high, the Saline Mixture (B), p. 114, may likewise be taken every two or three hours, in the dose of a tea-cupful. Barley-water, acidulated with tamarinds, or lemon-juice, is an excellent beverage. If attended with much pain in the head, or a sense of heaviness or stupor, a blister should be applied to the nape of the neck, and the feet immersed in warm water.

In this fever, as in erysipelas, if the brain be much affected, the nervous system often becomes disturbed, attended with great prostration of strength, when the treatment recommended for typhus fever will be necessary.

In cases of a disease so mild as scarlet fever, for which there is no remedy that *specifically* acts on it, the treatment should be directed more to the constitution of the patient than to the malady itself. If the system be plethoric, abstraction of blood, a purgative medicine, the saline mixture, with about twenty drops of the antimonial wine in each dose, and a low diet, will sometimes be proper; and if there be considerable irritation in the brain, or congestion of its blood, a blister to the nape of the neck will be necessary; but if the system be in an opposite condition, *i. e. leucophlegmatic*, a low diet, a mild aperient, as rhubarb powder, with two grains of calomel, and a warm room (about 60 degrees Fahr.,) will be sufficient.

OF SCIATICA. — When irritation occurs in the nerves of the hip-joint, or the great nerve of the thigh, it is thus termed. Like rheumatism in other parts of the body, it is both super-irritative and sub-irritative. — (*See* RHEUMATISM, p. 484.)

OF SCURVY. — The disease of the skin, termed land-scurvy, is noticed under the head of ERUPTIONS OF THE SKIN. In true sea-scurvy there is a general disposition in the body to decomposition or putrefaction, and which often locally takes place. It does not appear to be produced by contagion, and

more frequently occurs in cold than in warm climates. Sailors, and such as are shut up in besieged places, are generally its victims. It is characterised by extreme diminution of vitality, such as a pale and bloated complexion, spongy gums, livid spots on the skin, offensive breath, œdematous swelling of the legs, foul ulcers, fetid urine, and extremely offensive stools; the pulse is small, frequent, and towards the last intermits. This disease, in its last stage, exhibits a most lamentable and wretched appearance; with considerable aggravation of the above symptoms, the joints become swelled and stiff, the tendons of the legs rigid and contracted, general emaciation, bleeding at different parts of the body, the stools extremely fetid; at length, violent purging or dysentery comes on, and soon terminates the tragic scene.

Causes. — This disease arises, in the first instance, from the want of fresh provisions, and a due quantity of vegetables; probably assisted by the prevalency of cold and moisture, and such other causes as depress the nervous energy, as indolence, confinement, neglect of cleanliness, sadness, despondency, &c. A preternatural saline state of the fluids is assigned by Dr. Cullen as its proximate cause; but it seems to depend more on a deficiency of nourishment than on a vitiated state of the fluids. The reason that salted meat is so productive of scurvy is, because its nutritious juices run off in brine, and the fibres being hardened by the salt, are rendered more difficult of digestion.

Treatment. — A diet of fresh vegetables, and a beverage strongly impregnated with the juice of lemons, oranges, and the sub-acid fruits, are more efficacious in the cure of this disease than the most powerful antiscorbutic medicines. The essences of malt and spruce have likewise been found of great service, probably from the quantity of fixed air that escapes from them in the stomach. When lemon or orange-juice cannot be obtained, nitre dissolved in vinegar, in the proportion of an ounce of the former to a quart of the latter, has been found to afford the best substitute. Water acidulated with the nitric acid is, perhaps, not less efficacious: from one to two ounces or more of the former may be given three or four times in the course of the day; and of the latter, a quantity containing about fifteen or twenty drops of the nitric acid may be taken every five or six hours. The vitriolic acid, the Peruvian bark, and the red sulphate of iron, are likewise very valuable remedies in the far advanced stage of this disease.

The room or cabin of the patient should be fumigated two or three times a day with the nitrous vapours, which, with cleanliness will contribute much towards the recovery of the patient. — (*See* p. 195.)

The fæces and urine should never be kept in the chamber for a longer time than is unavoidable, and the vessel rinsed out with vinegar every time after it has been used.

The local bleeding should be suppressed by the application of styptics; such as a solution of alum, with dossils of lint.

In case of ulceration, the lemon-juice, with tincture of myrrh, or vinegar and myrrh, with charcoal powder, will prove the most efficacious application.

The *true* sea-scurvy, being attended with diminished energy of the brain, exhibits, in a remarkable degree, the great influence of the passions of the mind. Depression of spirits, bordering on despondency, is its constant attendant, the counteracting of which, experience has proved to be of the utmost consequence to the recovery of the patient. In Lord Anson's voyage, it was noticed, in reiterated experience of this malady, "that whatever discouraged the seamen, or at any time damped their hopes, never failed to increase the distemper: for it usually killed those who were in the last stages of it, and confined those to their hammocks who were before capable of some kind of duty; so that (as the writer judiciously observes) it seemed as though alacrity of mind and sanguine thoughts were no contemptible preservatives from its fatal malignity." And in Mr. Ive's Journal, a remarkable instance of the good effects of an opposite state of mind is given: "Upon the British fleet coming into the bay of Hieres (Feb. 1744), the men understood they were soon to engage the enemy's fleet. There appeared, not only in the healthy, but also in the sick, the highest marks of satisfaction and pleasure; and the latter daily mended surprisingly, insomuch, that on the 11th of February, the day they engaged the combined fleets of France and Spain, there were not above four or five men but what were at their fighting quarters." The siege of Breda, in the year 1625, affords an example of the influence of the mind in this disease still more striking: "That city, from a long siege, suffered all the miseries that fatigue, bad provisions, and distress of mind, could bring on its inhabitants. Among other misfortunes, the scurvy made its appearance, and carried off great numbers. This, added to the other calamities, induced the garrison to incline towards a surrender of the place; when the Prince of Orange, anxious to prevent its loss, and unable to relieve the garrison, contrived, however, to introduce letters, addressed to the men, promising them the most speedy assistance. These were accompanied with medicines against the scurvy, said to be of great price, but of still greater efficacy: many more were to be sent to them. The effects of this deceit were truly astonishing: three small phials of medicine were given to each physician. It was publicly given out that three or four drops were

sufficient to impart a healing virtue to a gallon of liquor. They now displayed their wonder-working balsam; nor even were the commanders let into the secret of this cheat on the soldiers. They flocked in crowds about the dispensers of it, every one soliciting that part might be reserved for his use. Cheerfulness again appeared in every countenance, and an universal confidence prevailed in the sovereign virtues of the remedy. The effect of this delusion was really astonishing; for many were quickly and perfectly recovered; such as had not moved their limbs for a month before, were seen walking in the streets, with their limbs sound, straight, and whole. They boasted of the cure by the prince's remedy, the motion of their joints being restored by simple friction with oil. Many who had declared they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy, and the no less general surprise, by their taking what we affirmed to be their gracious prince's cure." This curious relation (adds Dr. Lind) would perhaps hardly gain credit, were it not in every respect consonant to the most accurate observations, and the best-attested descriptions of that disease. It is given us by an eye-witness, who, an author of great candour informs us, wrote down every day the state of his patients, and seems to be more surprised with their unexpected recovery than he probably would have been had he been better acquainted with the nature of the malady. An important lesson in physic is hence to be learned, by the wonderful and powerful influence of the passions of the mind on the state and disorders of the body. This is too often overlooked in the cure of disorders, many of which are sometimes attempted by the sole mechanical operation of drugs, without calling in to our assistance the strong powers of the imagination, or the concurring influence of the soul. Hence it is, the same remedy will not always produce the same effect even in the same person; and that common remedies often prove wonderfully successful in the hands of bold quacks, but do not answer the purpose in a timorous and distrustful patient!

For the treatment of the diseases of the skin generally termed scorbutic, *see* ERUPTIONS OF THE SKIN.

OF SMALL-POX. — This disease is highly infectious, and the constitution that has been once *properly* under its influence, remains secure against a future attack. When the pustules are separate from each other, it is termed *distinct*; and when they run together, it is denominated *confluent*.

SYMPTOMS. — Like other eruptive fevers, it comes on with shiverings, pain in the head, nausea, and the ordinary symptoms of fever; and sometimes, a few hours before the eruption, children are affected with convulsions. The eruption appears about

the *fourth* day of the *fever*, first on the face, and afterwards on the neck, breast, and body. The pustules gradually enlarge and proceed to maturation, which is completed about the *eleventh* day after their first appearance, when the attendant inflammation and swelling manifestly abate, the eruption beginning to dry and scale off, and about the fifteenth day entirely disappears. The confluent sort is generally attended with more violent symptoms than the distinct, but observes the same period of termination, &c.

CAUSE. — It is produced by a *specific* contagion.

TREATMENT. — The small-pox, like the measles, always runs a determined course; all, therefore, that art can do, is to lessen the attendant fever, and to combat unfavourable symptoms. The great advantage of inoculation is, that precautions may be used, which cannot be employed in due time when it is received naturally; besides, by its being introduced into the constitution, when it is not much predisposed to take it, the crop will of course be less. To avoid a full crop of the eruption, it is necessary to lessen the fever by a dose of the basilic powder, which should be repeated every third day till the eruptions appear, provided the subject be not very weakly; or if the infection have been received *naturally*, a dose of the Saline Mixture (B), page 114, may be given every four hours, to each alternate dose of which twenty drops of antimonial wine may be added, if the patient be of a plethoric habit, till the feverish symptoms are abated: a low and cool diet will be proper. Barley water, acidulated with tamarinds, may be taken frequently. If the feverish symptoms run high after the eruption has appeared, the basilic powder and antimonial wine should be more frequently repeated. When the pustules begin to maturate, the saline mixture and the antimonial wine should be discontinued, and the patient may be permitted gradually to take to his usual diet; and if the crop be considerable, and the strength of the patient much reduced, provided he be free from fever, a little Port wine, diluted with water, may likewise be allowed after dinner. When the brain has suffered during the fever, morbid irritability of the nervous system sometimes comes on, with general debility, attended with the small discolorations of the cuticle termed the purples, a mild tonic medicine should be given, as the following mixture, to each dose of which (two or three table-spoonsful) a few drops of the solution of acetate of morphine may be added, if the patient be very restless or nervous.

Take of Infusion of Roses,
Decoction of Bark,
Port Wine, of each, - - 4 ounces.
Mix. Three table-spoonsful to be taken three or four times a day.

The diet should be nourishing, as arrow-root jelly, beef tea, &c. The matter for inoculation should be taken about the seventh day of the eruption, on a lancet or needle, with which the skin of the person need be only slightly scratched. — (*See* Cow-Pox.)

DISCHARGE OF BLOOD BY THE MOUTH. — It is often difficult to determine, in cases of blood discharged by the mouth, whether it proceeds from the internal surface of the mouth, from the fauces, from the adjoining cavities of the nose, from the stomach, or from the lungs; it is, however, of importance to ascertain its source, which in most cases may be done, by attending to the following observations: when the blood proceeds from some part of the internal surface of the mouth itself, it comes out *without* any *hawking* or *coughing*; and generally, upon inspection of the mouth, the particular source of it becomes evident. When it proceeds from the fauces, or the adjoining cavities of the nose, it may be brought out by hawking, and sometimes by coughing, as from the lungs; so that in this way a doubt may arise concerning its *real* source. A bleeding from the fauces is, however, *more rare* than one from the lungs, and seldom happens but to persons who have been *before* liable, either to bleeding at the nose, or to some evident cause of erosion; and in most cases, by looking into the fauces, the spot from which the blood escapes may be perceived.

When the blood is of a *florid* and *frothy* appearance, and brought up with more or less *coughing*, *preceded* by *rigors* and other feverish symptoms, with *anxiety* and a sense of *tightness across the chest*, there can be no doubt but that its source is from the *lungs*. When vomiting accompanies the throwing out of blood from the mouth, as vomiting and coughing often mutually excite each other, so they may be frequently joined, and render it doubtful whether the blood thrown out proceeds from the lungs or the stomach: we may, however, generally decide, by considering that blood does not so frequently proceed from the lungs; that the blood proceeding from the lungs is usually of a *florid* colour and mixed with a little *frothy mucus only*; while the blood from the *stomach* is commonly of a *darker colour*, more grumous, and mixed with the *contents of the stomach*; that the coughing or vomiting, accordingly as the one or the other *first* arises in the cases in which they are afterwards joined, may sometimes point out the source of the blood; and, lastly, that much may be learned from the circumstances and symptoms which have *preceded* the discharge.

When the source is from the stomach, it is termed *vomiting of blood*, which I shall consider in its alphabetical order. When the origin is in the mouth or fauces, it is of little consequence,

and may be checked by the use of the Discutient Gargle, page 109, or, where excessive, by the Astringent Gargle (B), page 108, and the loss of blood from the arm, if attended with a plethoric state of the system. If the cause be erosion or ulceration, or if it occur during fever, the treatment must depend on the nature of such fever or ulceration.

What is strictly meant by *spitting* of blood, is when the blood is discharged from a ruptured vessel in the lungs, which is technically termed *Hæmoptoe.* It occurs generally from the age of sixteen to thirty-five, and chiefly arises from a faulty proportion between the capacity of the vessels of the lungs and those of the rest of the body; accordingly it is often an hereditary disease, which implies a peculiar and faulty conformation. It likewise happens, especially to persons who discover the *smallest capacity* of the lungs, by the *narrowness* of the *chest*, and by the prominency of their shoulders, which last is a mark of their having been long liable to a difficult respiration. It happens likewise to persons of a slender delicate make, of which a long neck is a sign; to persons of much sensibility and irritability, and therefore of quick parts, whose bodies are generally of a delicate texture. It likewise frequently arises from suppression of the menstrual discharge, from plethora, and violent exercise of the lungs.

The most frequent cause of the rupture of a blood-vessel in the lungs is the deposition of scrofulous matter in the cellular substance of the lungs. The blood-vessels being partially distended in consequence of the pressure of these deposits, are easily ruptured by cough, or bodily exertion. The lungs of people who have died of the excessive loss of blood, or of the consequence of the ruptured vessel, viz. pulmonary consumption, I have always found loaded with small scrofulous tumours. — (*See* SCROFULOUS CONSUMPTION, p. 305.)

TREATMENT. — The discharge of blood from the lungs may in general be diminished (if the vessel be small) by avoiding whatever has a tendency to irritate the body and increase the action of the heart: a low diet should, therefore, be strictly observed, and external heat and bodily exercise avoided; the air of the room should likewise be kept cool, and the drink (which should consist chiefly of barley-water, acidulated with lemon-juice) taken cold, and the patient not suffered to exert his voice. After the operation of a gentle aperient medicine, as the Aperient Mixture (A), p. 111, with a little cream of tartar dissolved in it, two table-spoonsful of the following mixture may be taken, to diminish the excitability of the system, and quiet the circulation; —

Take of Almond Emulsion,	- -	6 ounces.
Acetated Ceruse,	- -	5 grains.
Distilled Vinegar,	- -	2 drachms.
Syrup of White Poppies,	- -	½ ounce.

Mix.

In case of much cough, five drops of the solution of acetate of morphine may be added to each dose of this mixture; but opiates should not be employed unless the cough be violent.

If the pulse be not much reduced by the discharge, a few ounces of blood should be taken from the arm, and a blister applied over the breast-bone, especially if pain be experienced in the chest, either on coughing or breathing.

Emetics have been given in this disease with advantage by Dr. Robinson, and still more lately by Dr. Stoll, of Vienna, who observes, that in discharges of blood from the lungs, ipecacuan powder sometimes acts like a charm, seeming to close the open vessels sooner and more effectually than any other remedy. The good effects of this remedy arise probably from the compression of the lungs by the action of the diaphragm and expiratory muscles during the act of vomiting, and the determination of blood to the extremities, and to the surface of the body, which also takes place.

When the discharge has ceased, its recurrence should be prevented by the use of cooling astringent medicines, as a wine-glassful of the infusion of red-rose leaves, with six drops of the diluted sulphuric acid, three or four times a day; the loss of blood from the arm on experiencing any pain in the chest, or difficulty of breathing; a seton in the side, or perpetual blister between the shoulders or over the breast-bone; flannel next the skin; avoiding much exercise, particularly of the lungs; the occasional use of aperient medicines to obviate costiveness; and a spare diet, consisting principally of animal jellies.

The extent of the depleting treatment by bleeding, purging, &c., must of course be regulated by the constitution of the patient. If plethoric, frequent and copious bleeding is often necessary; but if weakly or leucophlegmatic, an opposite treatment by astringent and tonic medicines is generally necessary. In both cases, a blister over the breast-bone generally acts beneficially. In females, the discharge of blood from the lungs, like that from the stomach, is vicarious, in which case it generally gives way to the Aperient Mixture (A), p. 111, and is very rarely followed by any serious mischief.

OF STRANGURY. — When this complaint succeeds the application of blisters, the free use of diluting liquids, as linseed-tea or barley-water, with twenty grains of nitre powder, and thirty grains of gum arabic, will generally afford relief in the course of a few hours. When it is occasioned by the pressure

of an impregnated womb, costiveness should be avoided by small doses of castor oil, and an horizontal position observed as much as possible. When attendant on the stone or gravel, it may be relieved by the means already recommended for those complaints. In my late treatise on the buchu leaves, I have particularly noticed the varieties of strangury and retention of urine.

STRICTURE IN THE RECTUM. — In cases of contractions of the rectum or colon from structural disease, and especially when ulceration has taken place, a collection of hard fæces in the colon produces a most distressing sense of distention, and the passing of them the most excruciating pain. Although the cause of the retention is mechanical, and admits of local treatment by injections, it is of great consequence to prevent the formation of hard fæces in the colon, or the lumps termed scybalæ, as it is often difficult to inject the colon so as to soften them. With this view I have found the following composition not only to produce soft fæces, but considerably to reduce the local irritation: —

Take of Alcaline Extract of Jalap, - 1 drachm.
Extract of Buchu Leaves, - ½ drachm.
Mix; and divide into twenty pills; two to be taken once or twice a day.

In this case, lavemens, particularly anodyne ones, are unquestionably important remedies when cautiously exhibited. I have found warm water with linseed oil and laudanum to act most beneficially; but the parts are often so exquisitely sensible as not to admit either of the introduction of a clyster-pipe, even when covered with elastic gum, or the *pressure* of the syringe with a conical end, recommended for costiveness attendant on pregnancy. The saline aperient salts, and the mineral saline purgative waters of Cheltenham, Leamington, &c. &c., I have uniformly observed to increase the sufferings of the patient, and particularly to aggravate the irritation at the neck of the bladder, which, more or less, I have always found to accompany organic diseases of the rectum.

As an internal medicine, two large tea-spoonsful of the tincture of buchu leaves, taken two or three times a day, in a large wine glassful of the decoction of marshmallow root, has proved very beneficial in allaying the exquisite sensibility of the nerves of the rectum, bladder, &c. *

* For topical and constitutional treatment of this formidable disease, I have given explicit directions in a small work on Strictures of the Urethra, Rectum, &c. entitled, "A Practical Treatise on Strictures of the Urethra and Rectum, Morbid Irritability of the Bladder, Tabes Dorsalis, &c. &c. with Instructions for the Use of the Buchu Leaves."

STRICTURE OF THE URETHRA. — As the varieties of urethral stricture cannot with propriety be admitted into a work intended for domestic reference, I must refer those who are desirous to obtain a knowledge of this class of maladies, and the treatment applicable to each, to my late Treatise on the Buchu Leaves.

SWEATING, PROFUSE. — Excessive perspiration, attendant on inflammatory fevers, or internal inflammation, as pleurisy, &c., should always be considered *salutary*. If it be evidently the consequence of debility or relaxation of the system, the diluted vitriolic acid, as directed p. 68, will prove the best remedy.

In all cases of perspiration, it is of great importance to determine whether it be a *disease* or an *effort* of *nature* to relieve the system of plethora, which often requires an experienced practitioner to decide: even the colliquative sweats attendant on pulmonary consumption, or hectic fever, are to be suppressed with the greatest caution.

OF TENESMUS. — SYMPTOMS. — This disease consists in a constant irritation at the fundament, with an inclination to go to stool, when little or nothing can be discharged, except slime or mucus, which is sometimes streaked with blood.

CAUSES. — It is often attendant on stone in the bladder, and diseased prostate gland, and frequently occasioned by inflammation of the neck of the bladder, from gravel, or the use of astringent and stimulating injections. It is likewise frequently produced by small worms in the rectum, acrid humours, the pressure of an impregnated womb, piles, ulceration, &c.

TREATMENT. — When it is produced by the irritation of a stone in the bladder, it will require the same treatment as already directed for stone. — (*See* also SUPPOSITORIES, p. 131.)

When inflammation of the neck of the bladder is the cause, the application of leeches, the Purgative Mixture (B), p. 113, and the warm bath, will be necessary, and general bleeding, if the subject be of a plethoric habit.

If worms be the cause, the treatment recommended for their expulsion will be necessary; and when an attendant on pregnancy, small doses of Rhubarb, No. 25, or Lenitive Electuary, No. 47, and lying on the right or left side when in bed, instead of the back, will generally afford relief.

In all cases, *aloetic* medicines are highly improper; the frequent use of which having, from their stimulating effects on the rectum, often produced the disease.

Under the head of Piles, I have noticed a few diseases of the rectum on which tenesmus is a general attendant.

This disease, in consequence of the ignorance of the patient in describing it, is often mistaken for diarrhœa, or purging. It is common for children to complain of being purged when afflicted with it, when, instead of purging, an opposite state of the intestines exists, the evacuations being only mucus from the internal membrane of the rectum.

OF TETANY. — This disease is a spasmodic affection, and is most common in warm climates.

SYMPTOMS. — It is characterized by an involuntary and continued contraction of all or several of the muscles of the body, receiving various appellations, according to the situation of the parts attacked. When the muscles of the jaw are principally affected, it is named *Trismus*, or *Locked Jaw*. It commences with a stiffness in the back of the neck, which gradually increases to pain, and renders the affected part entirely immoveable. It extends to the root of the tongue, affects the muscles concerned in swallowing, then attacks the front of the chest, and, lastly, seizes the back. Spasms at length arise in the stiffened parts, and occasion excruciating pain. A remission of the spasms often takes place every ten or fifteen minutes, but is renewed with aggravated torture on the slightest causes, by the least motion or the slightest touch. The teeth become entirely closed, so that nothing can be introduced into the mouth; and, towards its termination, the voluntary muscles of the body are affected, producing the most hideous deformity.

This disease is not attended with a continued fever, but some temporary symptoms of it appear during the violence of the spasms. No habit of body is exempt from it, but the robust are most frequently its victims.

CAUSES. — Cold and moisture, particularly sudden vicissitudes or irritation of the nerves, in consequence of local injury, as lacerations, contusion, cuts, &c. are the most common causes of this disease.

TREATMENT. — When it arises from a wounded nerve, the most important step toward the cure is, to cut off the communication of the part with the brain, either by dividing the nerve in its course, or by removing, to a certain extent, the injured part. If the wound be on a finger or a toe, it should be amputated.

Opium is the only remedy that has been found capable of allaying the morbid irritability that exists in this disease: sixty drops of laudanum, or a grain of acetate of morphine, or sixty drops of a solution of it (*see* p. 150), should be given in a little wine every three or four hours, and the dose increased ten or twenty drops each time, till the violence of the spasms abates; it should then be continued at that dose for some time longer, the

disease being very liable to recur. This medicine, even in large doses, does not operate in these cases as in other disorders; for, although it produces some remission of the spasm and pain, it scarcely ever induces sleep, or occasions that stupor, intoxication, or delirium, which it generally does in other complaints. Opium has been given, and, in a few instances, with success, to the extent of half a drachm, which is equal to about three quarters of an ounce of laudanum.

If the muscles of the jaw, and those concerned in swallowing, be so much affected that this remedy cannot be got into the stomach, it must be administered clysterwise, by dissolving about two scruples or a drachm of opium in half a pint of gruel, which should be injected every three or four hours. If the jaws be so closed by the spasm of the muscles, that they cannot be opened during any period of the day, it will be advisable to remove a portion of the front teeth by a small saw or trephine: for it is certainly of great consequence to get the remedy, as well as nourishment, into the stomach, which may, in general, be afterwards done by means of Read's stomach pump. (*See* p. 226.) The Nutrient Clyster, p. 107, with from two to six grains of morphine dissolved in it, should be administered three times a day. The body may also be immersed in warm milk once or twice a day, from which a sufficient quantity will be absorbed to support life; and I think if the milk were strongly impregnated with opium or morphine, it might also tend to abate the spasms.

Mercury has been much recommended as a remedy for this disease; and, as it does not interfere with the exhibition of opium, a drachm or two of the strong mercurial ointment may be rubbed on the inside of the thigh twice a day, till the whole has entered the system; and, in order to accelerate its operation on the constitution, the body may be placed in mercurial fumes, as directed by Lalonette, and lately recommended by Mr. Abernethy, in order more speedily to saturate the system with mercury, which, in so formidable a disease, is certainly of the utmost importance. For this purpose the patient should be enclosed *naked* in a kind of box resembling a sedan, having above an opening which encircles the neck, and at the bottom another, for the reception of a heated iron; the mercurial * powder is to be thrown on the iron, and after the fumes are entirely dispersed over the body, a flannel dress, which has also been subjected to the same fumigation, should be put on.

* The grey precipitate of mercury, calomel, or cinnabar, may be employed for this purpose.

Cold bathing is much extolled, and it seems, in many instances, has succeeded in curing this disease: and as the use of the warm bath is very doubtful, and in many cases has proved hurtful, the cold bath should have the preference.

Dr. Reid, a scientific physician of Edinburgh, having found the spinal marrow to be much inflamed in this disease, recommends an abstraction of blood from the course of the spine by leeches or cupping, and the whole length to be afterwards covered with a blister. This treatment, with anodynes and attention to the bowels, has succeeded in the doctor's practice. Placing the body in a warm vapour, strongly impregnated with opium, the deadly nightshade, and mercury, lately recommended by a German physician, may act as a powerful auxiliary to Dr. Reid's treatment.

The cerebral system being often disturbed by irritation of the stomach or intestines, it will also be advisable to empty the intestinal canal by a dose of croton oil, as directed p. 154, and by the Purgative Clyster (A), p. 103, with the addition of half an ounce of the spirit of turpentine, both by the mouth and clysterwise, which should be frequently repeated. As it is in the *commencement* of this disease that remedies are to be employed with a *probability* of success, medical aid should be procured as early as possible.

The extract of deadly nightshade, both internally and externally (as a liniment or lotion, or by means of the warm bath), and the Prussic acid (internally), have not had the trial in this disease to which their powerful antispasmodic properties entitle them.

Practical Remarks. — According to the results of the different remedies that have operated beneficially on this formidable disease, the following mode of proceeding appears to be judicious: 1. Remove the injured part, or apply to it a poultice of infusion of deadly nightshade, or the extract dissolved in warm water and oatmeal or bread. 2. Abstract blood from a vein, according to the state of the body in regard to plethora. 3. Administer one or two grains of acetate of morphine, with half a grain of extract of belladonna and four grains of calomel, every three hours, and an anodyne clyster two or three times a day. 4. Apply a long narrow blister (about twenty inches in length, and two inches in breadth) over the spine. 5. Rub about one or two drachms of strong mercurial ointment over the skin of the inside of the thighs or arms twice a day. 6. Put the body into the warm anodyne vapour bath, at the temperature of 120° (Fahr.); and, 7. If the system be sinking, introduce nourishment (fresh milk) into the stomach by Read's stomach syringe, and administer the Nutrient Clyster, p. 106, with acetate of morphine.

OF TIC DOULOUREUX. — This disease consists in a painful affection of the nerve, principally occurring in the face; and, of all the diseases to which the human frame is subject, it is the most distressing. Its most frequent seat is the nerves of the cheek, just below the orbit of the eye, the end of the nostrils, the upper lip, and the teeth and gums. Sometimes the nerves of the lower jaw are principally affected. From the connection between the branches of the nerves of the face, the pain often extends to the tongue, ear, and over the face. It sometimes occurs in the nerves of the extremities.

CAUSES. — It has been attributed by some writers to a cancerous acrimony; but as cancer has never been known to occur in people subject to the disease, there can be no foundation for such supposition. It, no doubt, frequently arises from diseased structure of nerves, which is not evident on dissection.

TREATMENT. — The external application of anodyne and stimulating liniments, blisters behind the ears, bleeding by leeches, mercurial inunction, and electricity, have, in some instances, been found to diminish the violence of the paroxysm, and increase the intervals of recurrence; but, in others, they have not even produced the slightest mitigation: nor has the internal use of the usual nervous medicines, as valerian, camphire, opium, castor, &c., been productive of much relief. Shaving the head, and washing it with cold water twice a day, and placing the head for two or three minutes under a stream of cold water, three or four times a week, I have lately known to succeed in two cases which resisted the usual means.

Several cases of this disease, cured by the long use of hemlock, have been published. In the many trials I have known made of it, it acted only as a weak palliative; and, in every instance, the dose was gradually increased to the same extent. Like many other diseases, it sometimes terminates spontaneously, when the medicine the patient was taking at the time obtains the credit of the cure.

The extract of the henbane, in the dose of five grains, three times a day, has been administered in the form of a pill, in some cases with success.

Dr. Haighton, finding that a temporary relief was obtained by compressing the suborbitary nerve, was induced to divide the nerve; and, in several instances, this operation has succeeded in his, and also the practice of others. Mr. André, a surgeon at Versailles, had before cured this complaint by burning the nerve with caustic, and by excision. — Dr. Haighton has given a drawing, in the Medical Researches for 1798, which shows the exit of the suborbitary nerve and its branches, accompanied with precise directions where the incision should be made. The

Cold bathing is much extolled, and it seems [illegible] only justify the has succeeded in curing this disease: and a[illegible] bath is very doubtful, and in many cases [illegible] the nerves of the face cold bath should have the preference. [illegible] state of the digestive

Dr. Reid, a scientific physician of [illegible]ep up nervous irritability the spinal marrow to be much infl[illegible], p. 403.) The use of a double mends an abstraction of blood fr[illegible]ass over the cheeks, and cover leeches or cupping, and the [illegible]and generally beneficial. covered with a blister. Th[illegible]ne years since, published a Treatise attention to the bowels, ha[illegible]ch he highly extols the belladonna as Placing the body in a w[illegible] with cases in which its external and opium, the deadly nigh[illegible] The sulphate of quinine, in the dose of by a German physicia[illegible] times a day, with and without half a Reid's treatment. [illegible]orphine, has been recommended by some

The cerebral s[illegible] The Prussic acid has likewise its advocates stomach or inte[illegible] this disease. testinal canal [illegible] number of the Monthly Gazette of Health, an the Purgati[illegible] article appears on the treatment of this distressing ounce of t[illegible] Editor of the *Gazette de Santé de Paris*, and wise, wh[illegible] remedies are recommended, as the chlorine, &c. which, *mencem*[illegible] have been lately employed in France and Germany a *pro*[illegible] In the 53d and several subsequent numbers of the as p[illegible] of Health, numerous cases are published which were [illegible] by the subcarbonate of iron, in the dose of a scruple to a n[illegible] twice a day, made into a bolus with the conserve of the t[illegible] orange-peel. On the efficacy of this remedy, in the cure [illegible] doulourеux, Mr. Hutchinson, a scientific and experienced [illegible]on of Southwell in Nottinghamshire, has lately published a [illegible]. From the reports of several practitioners, and the results of my own experience, this remedy has proved more generally beneficial than any other.

The state of the general health being always more or less disturbed, particularly the digestive organs: it should be corrected before the remedies are employed, which are recommended as specific. If the patient be of a nervous habit, the Nervous Mixture (C), p. 113, will prove a valuable auxiliary either to the subcarbonate of iron or the anodynes and the sulphate of quinine.

OF THE TOOTH-ACHE. — This well-known disease generally arises from the exposure of the branches of the nerve of the tooth to cold air or acrid matter, in consequence of caries. It is, however, frequently occasioned by inflammation of the membrane lining the socket, in which case the tooth is a little elevated, seldom carious, very painful to the touch, and attended with a throbbing pain, which often extends to the neighbouring

latter kind generally terminates in the formation of
nly termed a gum-boil.
th is carious, its extraction may, in some
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of the tooth is evidently *constitutional*, its
. all cases to be advised, as the same diseased
probably go on in another tooth. It is a prevailing
urgeons and dentists, that a bad tooth will con-
e one next to it; but in this instance, it will be the
preserving the others sound.

When tooth-ache is *inflammatory*, in which case the tooth is generally sound, the cure should be attempted by extracting blood from the gum by leeches or scarification, which, with the use of a purgative medicine, as the Purgative Mixture (A), p. 113, and twenty drops of antimonial wine, with five drops of the solution of the acetate of morphine in a glass of water every two or three hours, will probably remove the cause; if, however, it should prove obstinate, a blister may be applied behind the ear, and the scarification or application of leeches repeated; and if the consequence of exposure to cold, the warm bath should also be employed.

The angustura bark powder, in the dose of fifteen grains, taken every four hours in a little water, is much recommended as a remedy for tooth-ache. When it is entirely nervous, or arises from a disordered state of the stomach, I have known this medicine to succeed in curing it in a few hours.

The violence of pain may in all cases be mitigated by the application of ether and laudanum, by means of lint. The mouth should be previously rinsed out with warm water, to remove any acrid matter that may be lodged in the cavity of the tooth. A pill of camphor and opium, introduced into the hollow of the tooth, is a popular remedy; as are also the oils of cloves, thyme, and pellitory of Spain. The exclusion of the atmospheric air, by filling the cavity with a mixture of gum mastic and white wax, when the nerve is not inflamed or in a state of morbid excitement, will not only prevent the recurrence of tooth-ache, but often suspend the progress of caries.

The tincture for tooth-ache recommended by Mr. Perry, of Farnham, I have known employed in several instances with success. Mr. Hertz, in his popular Treatise on the Management of the Teeth, speaks highly of it as a remedy for the tooth-ache.

The effect of fear on this malady is remarkable; the sight of

the instrument for extracting the tooth often giving perfect relief, even when the pain has arisen from a carious tooth.

" Of all animals (observes Mr. Hertz, in his late Familiar Dissertation of the Teeth), man is the most subject to disease of the teeth; and it is strange that a decay of this very useful part of the body should take place in young people, apparently in a perfect state of health. The gums, by the firmness of their texture, support the teeth in their sockets; and, being also abundantly supplied with blood-vessels, the teeth, and particularly their external coats, termed enamel, derive their nourishment from them. Hence it must appear clear, that on the healthy state of the gums depends the health of the teeth. Indeed, in all cases of caries of a tooth, we uniformly find the surrounding gum either diseased, abraded, or detached from the teeth, by the use of some pernicious tooth-powder, or hard brush. The matter that collects on the teeth, termed tartar, is evidently a morbid secretion from the gums, in consequence of their spongy structure, or of being separated from the teeth, the latter of which is the most frequent cause. The brush and powder employed for the purpose of removing the matter, both tend to aggravate the evil, by abrading the gum as well as the enamel of the teeth, and by the spreading of the hairs of a brush, the gum is detached from the teeth, and irritated. Hence people who are in the habit of using them are under the necessity of repeating the operation every morning, in order to keep them clean.

" The teeth receiving their nourishment from the gums, a diseased state of the gums, or their detachment from the teeth, sufficiently accounts for caries or unhealthy appearance of the teeth. I therefore advise people to pay more attention to the state of the gums; and instead of cleaning the teeth with powder and a hard brush, to wash the gum gently, internally as well as externally, every morning, or three times a week, with equal parts of tincture of rhatany root and water, by means of a piece of sponge fastened to an ivory handle. This, by constringing and strengthening the gum, will not only render the teeth more firm in the sockets, but effectually preserve them from caries and tooth-ache, and prevent the accumulation of tartar. The teeth may also be gently rubbed with the same sponge and diluted tincture of rhatany, with the surface covered with the prepared charcoal of the areca nut. A hair brush should not be employed but when the tartar, in consequence of neglect, adheres too firmly to the teeth to be removed by the sponge. When a hair brush is employed, care should be taken that the gum be not irritated by it." — (*See* PREPARED ARECA CHARCOAL, page 154.)

Those who follow these directions will have little or any occasion to employ a dentist. Those that are in the habit of using a hair brush, and the mineral tooth powders of dentists, and stimulating washes of tincture of myrrh, &c., have the edges of their gums tumified and tender; while the gums of those who do not use them, and who have the soundest teeth, are nearly level with the heads of the teeth.

Rickety and scrofulous children are very subject to caries of the teeth. In those cases topical management will be of little avail, unless the state of the constitution be corrected. — (*See* RICKETS and SCROFULA.)

Nothing is more injurious to the enamel of the teeth than sugar or sweetmeats, particularly in rickety or scrofulous subjects.

Under the head of Prepared Areca Charcoal, page 154, some further observations on tooth powders, and explicit directions for their use, are given.

People subject to irritation of the nerves of the teeth and jaws should pay particular attention to the state of the digestive organs (*see* INDIGESTION, p. 403), and keep the head warm during the night, by means of the flannel cap recommended for the tic douloureux, and the feet warm by the use of thick woollen socks or stockings.

OF TYPHUS, OR PUTRID FEVER. — This disease is likewise named *malignant*, *camp*, *gaol*, *pestilential*, and, when attended with livid spots, *petechial* or *spotted* fever. It occurs most frequently in autumn and the end of summer, when the days are hot, and the nights cold and chilly.

SYMPTOMS. — It generally commences with pain in the head, vomiting, slight shiverings, intense and permanent heat, great thirst, irregular pulse (being sometimes dense and hard, and at others quick), but small; while the arteries of the temples and neck often appear to beat with increased force, with flushing of the face, redness of the eyes, denoting a considerable determination of the blood to the head. An increase of the fever is observable every evening; and in a few days the patient becomes delirious, the surface of the tongue dry and hard, and in a day or two the cuticle of the tongue exhibits a blackish appearance, and is particularly rough and hard, attended with great prostration of strength, and an offensive breath. The delirium becomes more constant, and at length changes to a stupor; an eruption of livid or purple spots sometimes appears: the stools at this period are blackish, which, as well as the urine, emit a disagreeable odour, and sometimes are discharged involuntarily. There is also great anxiety about the heart, and great inclination to sigh, sometimes attended with a discharge of blood from the nose, gums, intes-

tines, or with the urine. A copious and obstinate purging, cold clammy perspirations, and hiccup, precede its fatal termination.

CAUSES. — The most experienced practitioners of the present day differ in opinion with regard to the manner in which this disease is propagated or produced: some contending that it is contagious, and others that it is occasioned by some condition of the atmosphere. It is evidently often epidemic, from some atmospheric or terrestrial cause *, with which we are unacquainted. The characteristic symptoms of the disease arise from the constitution of the patient, and are not the effect of any specific poison: hence, what will produce inflammatory fever in one constitution will produce typhus in another. The difference between these two fevers is, that in typhus the nervous system is in a morbid degree of irritation, while in inflammatory fever it is very slightly affected. In consequence of the disturbed state of the brain and nerves, a considerable degree of general debility ensues, attended with a disposition in the fluids and solids to decomposition or putrefaction.

Some of the early symptoms, as the acute pain in the head, the turgid state of the vessels of the eyes, and the increased action of those in the neck and temples, the disordered state of the mind, the deprivation of sleep, and affection of the whole nervous system, indicate an inflammatory excitement of brain, which is confirmed by the examination of those who have died of this fever.

The cuticle of the tongue and gums seems to be first affected; and, during the progress of the fever, this affection continues to increase, and from its appearances, as to colour, moisture, or disposition to separation, practitioners form an opinion respecting the probable termination of the disease. The state of the cuticle of the tongue often extends down the gullet, and has been known, like thrush, to extend throughout the internal lining of the intestinal canal.

TREATMENT.—This disease, when once established, generally runs its course in defiance of medicine, and, in such case, its favourable or unfavourable termination depends on the natural

* It is probably often the consequence of some unhealthy condition of the part of the earth on which it occurs; for putrid fever, attributed to contagion, makes an equally rapid progress where guards have been placed, and high walls have been built, as in Russia, &c., to prevent communication; and some instances have occurred of a great part of Europe, Asia, Africa, and America, suffering from similar fevers nearly at the same time. The partial appearances of pestilential fevers, and the frequent occurrence at the same place, are proofs of some local diseased state of the earth. The French historian Mezeray states that in the kingdom of Cathay, where a very fatal fever raged for some time, the vitality of the vegetables (from the grass to large trees) was destroyed.

constitution of the patient: hence it is of great importance to check the progress in its onset: for this purpose, abstraction of eight or ten ounces of blood from the temporal artery, or by cupping, is proper, after which the Emetic Draught, p. 106, should be given, which, by evacuating the stomach and bowels, producing an equal distribution of blood over the body, and promoting the different secretions, generally succeeds in abating the symptoms, if it should fail effectually to check it. If the pain in the head should continue, the scalp should be shaved, and a blister applied over it, and also leeches to the temples, and the feet kept warm by frequent immersion in warm water. The saline mixture should be given in a state of effervescence, as recommended under the head of Crystallized Acid of Lemon, p. 71, or a table-spoonful of yest twice a day. Fixed air, administered in this manner, affords more relief than any other medicine; and, in several instances, has proved an effectual remedy — not by counteracting putrescency, as many have imagined, but by cooling the body, abating thirst, and diminishing the morbid irritability of the stomach. The room should be spacious, well ventilated, and often fumigated, as directed page 195. Washing the body with *cold* vinegar, when the skin is hot and dry, and the application of it to the scalp and forehead, by means of folds of linen, have proved very beneficial, probably by conducting superabundant heat from the body, and by exciting the action of the skin. The application of cold water or ice to the head has been much extolled in this disease, but *cold* vinegar is certainly preferable. The patient may likewise smell a sponge moistened with the camphorated acetic acid, at a short distance from the nostrils; a little of which may likewise be sprinkled over the quilt of the bed, or evaporated in a saucer (over the blaze of a candle), which, in *small* rooms, will supersede the necessity of a more elaborate process of fumigation. The smelling of the volatile salt in this case is very improper, as it is apt to increase the delirium. Yest, in the quantity of a table-spoonful every three or four hours, has been administered in this fever with great success by many physicians in the country, who attribute its salutary effects to the fixed air it contains: much of the advantage derived from it probably arises from the peculiar anodyne property of the hop, with which it is strongly impregnated. The hop is more efficacious in allaying the nervous restlessness attendant on this fever than any other anodyne. The food should be principally weak veal broth, thickened with a little arrow-root or oatmeal, and the drink mint-tea or barley-water, acidulated with lemon-juice.

When local congestion takes place, either in the brain, the chest, or in the liver, abstraction of blood by leeches, or by cup-

ping over the seat of it, and even general bleeding, have been much recommended; but, in such cases, it is often a very nice point to determine whether the constitution will bear the loss of blood; and it is often difficult to determine whether the symptoms indicating the local congestion may not be occasioned by nervous excitement. The congestion, again, may be chiefly venous, arising from debility, like the venous congestion of elderly people; in which case abstraction of blood by leeches, or by cupping, would prove very hurtful, by reducing the vital powers, on the support of which the recovery of the patient entirely depends. When local congestion evidently exists, it should be removed by derivatives; and, if the patient be not much reduced, or is not suffering from determination of blood to the brain, by an emetic. — (*See* DERIVATIVES, p. 23, EMETICS, p. 27, and EVACUANTS, p. 32.)

Calomel, in the dose of three or four grains, with four grains of the antimonial febrifuge powder, given every three hours, has been lately much prescribed in the first stage of this fever, and of all the modes of treatment that have been recommended, I believe it to have proved the most successful. When it increases the secretion of saliva, and affects the gums, the patient generally recovers. When the tongue becomes moist, and speedily throws off the diseased cuticle, the remedy should be discontinued. During the use of this remedy, it is common to administer a mild tonic medicine, as the following mixture: —

Take of Infusion of Roses,
Decoction of Peruvian Bark, of each 4 ounces.
Three table-spoonsful to be taken three or four times a day.

The head should be kept cool, by means of a mixture of water and vinegar, applied with a napkin. An Aperient Mixture (A), p. 111, should also be administered once or twice a day, so as to produce two or three fæcal evacuations daily. If the head be much disturbed by too great an afflux of blood to the brain, six or twelve leeches may be applied to the temples, according to the general state of the system, and a blister to the nape of the neck. During this treatment, the system should be supported by beef tea, arrow-root or tapioca jelly, and barley-water, slightly acidulated with lemon-juice.

If, on the fifth or sixth day of the disease, the patient be evidently in a sinking state, a more nutritious diet may be allowed, and the strength of the patient supported by a mixture of equal parts of decoction of bark, camphorated julep, and Port wine. If the brain be not much disturbed, and the fever evidently depends on debility, this treatment will prove very beneficial, and the patient will appear very considerably refreshed by every dose of the medicine.

If purging should come on so as to reduce the strength of the patient, the Astringent Mixture (B), p. 112, should be administered, and the Anodyne Lavement, p. 104, or the Nutrient Lavement, p. 106, if it continue violent.

The tongue becoming more clean and moist, and the countenance more animated, are very favourable prognostics. The dark foul state of the surface of the tongue often extends throughout the intestinal canal, which being thrown off as the patient recovers, produces purging, which in such cases should be moderated, and not entirely checked. — (*See* LIME-WATER, p. 144.)

When treating on inflammation of the brain, I observed, that this disease was often mistaken for putrid fever, and there noticed a well-marked case of the kind, which was so treated by a country apothecary; the disease, of course, terminated fatally, and I availed myself of the opportunity of examining the state of the brain.

The typhus fever appears sometimes to commence in the brain, without disturbing the constitution for three or four days; at other times the stomach and bowels are first attacked, and the head is not affected for some days afterwards. If its progress be not checked in the first instance by an emetic, an aperient, and sudorific medicine, the office of the physician is to attend to the indications of nature, and to take care that no injury be done to the patient by officious nurses or friends. Routine physicians often employ, in the first instance, wine and cordials, which, by increasing the irritation of the brain, will destroy that chance of recovery which depends on the natural strength of the constitution.*

For the means of purifying the air of the chamber, see page 194.

OF VOMITING. — When vomiting is the effect of poisons taken into the stomach, it requires the treatment recommended for poisons, page 173.

Vomiting is a very common attendant on pregnancy; and the most robust females, as well as the weak and delicate, being equally subject to it, it often requires opposite modes of treatment. When it is attended with general *fulness*, or determination of blood to the brain (evinced by pains and giddiness in the head, flushing in the face, or bleeding at the nose), blood-letting with

* Wine, and even brandy, in cases of extreme debility, in the advanced stage of the disease, may be necessary to keep up the vital powers; but their indiscriminate use has no doubt destroyed the lives of thousands. The mortality of the disease may in some degree be attributed to maltreatment; for the idea prevailing that it is a putrid disease, the first thing, after giving it a name, is to have recourse to the free exhibition of wine and cordial medicines. Even phosphorus, with brandy, has been recommended as a remedy for typhus.

gentle purgatives, as the Aperient Mixture (A), p. 111, taken every morning, and a spare diet, will afford relief; but when it occurs in a delicate woman, and is attended with symptoms of debility, such as languor and profuse perspirations, a nutritious but light diet, with a moderate use of brandy and water, generally proves beneficial. Two table-spoonsful of the following mixture may likewise be taken two or three times a day:—

Take of Infusion of Roses, - 7 ounces.
Epsom Salt, - - 2 drachms.
Compound Tincture of Cardamom Seeds, 6 drachms.
Mix.

Or, if acidity prevail in the stomach, the Stomachic Mixture, p. 114. The Anodyne Plaster, p. 129, may also be applied over the region of the stomach. Moderate exercise will, in both cases, be necessary. An emetic should not be administered without the sanction of a skilful practitioner, as the violence of straining in a delicate habit may produce abortion. When vomiting arises from *weakness* or *irritability* of the stomach, or acidity, it should be considered as a symptom of indigestion, and as such treated. When the matter thrown up is bilious, small doses of Epsom Salt, and the Diluted Sulphuric Acid, p. 68, will be proper, to which a few drops of laudanum may be added in case of much straining. When vomiting is the consequence of hard drinking, diluents, as tea and coffee, with a dose of magnesia, or carbonate of soda, will prove the most efficacious. When the cause is not evident, the saline draughts, in a state of effervescence, or soda water, with the occasional use of small doses of rhubarb, and the solution of acetate of morphine, or laudanum, may be employed, and the Anodyne Plaster, p. 129, applied to the pit of the stomach.

Vomiting is often attendant on organic disease of the stomach, schirrosity of the pylorus, or ulceration of the inner coat of the stomach, when the matter brought up is generally very slimy; in such cases, two or three grains of extract of poppies, or from six to ten drops of the solution of acetate of morphine, taken two or three times a day, with linseed-tea and lime-water, will afford relief. — (*See* INDIGESTION, p. 403.)

Vomiting is generally a symptomatic affection, when the cure will, of course, depend on the nature of the primary disease.

Vomiting of children frequently arises from their being overfed, when the ejected matter is for the most part sour. A little magnesia, or carbonate of soda, in mint water, will in such cases prove beneficial. If the stools be green, or of a clay colour, a gentle emetic dose of ipecacuan powder will be necessary.—(*See* FEEDING OF CHILDREN.)

OF VOMITING OF BLOOD. — When blood is discharged into the stomach, and brought up by vomiting, it is thus termed; and when it proceeds from the lungs, although its expulsion be assisted by vomiting, it is termed hæmoptoe, or *spitting* of blood. In describing the latter affection, page 507, I have noticed in what manner the source of the blood thrown out from the mouth might be ascertained. When the blood is brought up without coughing, of a black and grumous appearance, and mixed with the contents of the stomach, there can be no doubt of its having been ejected from the stomach.

CAUSES. — In females it generally arises from the suppression or retention of the menstrual secretion, and in males, who are very rarely affected with it, from repelled or suppressed piles.

TREATMENT.—If the patient be of a plethoric habit of body, the loss of eight or ten ounces of blood from the arm will be necessary; after which the Astringent Mixture (A), page 112, should be taken as there directed.

It will likewise be proper to produce a determination of blood to the skin, by small doses of ipecacuan powder, combined with opium, as two grains of the former with half a grain of the latter, or eight drops of laudanum. With the same view, the feet should be put into warm water for ten minutes. If these means fail to check the bleeding, six or eight grains of alum, in powder, may be added to each dose of the mixture, and a blister applied to the pit of the stomach. — (*See* ASTRINGENTS, p. 15.)

Thin gruel will be sufficient both for food and beverage, which should be taken cold. If it arise from suppression or retention of the menses, after the discharge has ceased for some days, the remedies already recommended for these complaints should be employed, to produce a proper determination to the womb. — (*See* GREEN SICKNESS, and SUPPRESSION OF THE MENSES.)

If the patient be of a weakly or leucophlegmatic habit, loss of blood will be improper.

When the cause is a suppression of the piles, the occasional use of an active purge, as the Purgative Pills (A), p. 117, or a lavement of gruel, with a drachm of socotrine aloes, and a tablespoonful of salt, will afford relief, by reproducing the piles.

OF THE WATER-BRASH. — This disease is very prevalent in Scotland and Ireland, but rarely occurs in England. It chiefly appears among the lower orders of people, and more commonly at middle age, though sometimes old people are subject to it. It affects females oftener than males, and, of married women (unless during pregnancy), the barren are most subject to it. It consists in a discharge of clear water by vomiting or eructations, attended with a burning heat about the pit of the

stomach. It generally comes on by fits, which are most frequent when the stomach is empty, as in the morning and forenoon. The pain is considerably abated by eructations and vomiting, but it does not entirely terminate for some time.

CAUSES. — This disease arises from a morbid condition of the internal membrane, or gastric glands, the nature of which has not been ascertained further than its being *irrivation*, produced by intemperate use of a spirituous liquor, particularly whiskey. Passions of the mind, and cold applied to the lower extremities, often act as exciting causes.

TREATMENT. — The spasms of the stomach may be relieved by laudanum and æther, the dose of which must be proportioned and repeated according to the violence of the fit; afterwards the use of the Aromatic Tincture of Rhatany Root, or Compound Tincture of Camomile and Ginger, or Stimulating Mixture, page 114, avoiding costiveness, by the occasional use of the Aperient Pills, page 117, with a generous diet, and abstinence from spirituous and fermented liquors, will effect a cure.

OF WARTS. — Warts are organized bodies, possessing probably a kind of parasitical life, like the fungus of a tree. Whatever proves destructive to the life of parasitical animals in the body, appears, when applied two or three times a day, to produce a destructive effect on warts, such as the muriated tincture of steel, solution of arsenic, &c.

When a wart has a narrow root, it may be easily removed by ligature, or scissars, but when the basis is broad, the best plan is to destroy it by rubbing the surface every second morning with a little lunar caustic, till it is entirely destroyed.

The influence of the imagination in destroying warts is very extraordinary, many instances having occurred of their gradually disappearing after the use of a charm, which, of course, could operate only through the medium of the mind. It has been said, that even when the person had no confidence in the mystic remedy, it has succeeded. The irritation which produces these excrescences, may be allayed through the medium of the mind, and on removing the cause, the effect will, even in cases of certain tumours and structural mischief, gradually disappear.

OF WATERY HEAD. — This disease is almost peculiar to infants, and chiefly those of a scrofulous or rickety habit. It rarely occurs after the fourteenth year.

It commences with slight pain in the head, generally across the brow: as the effusion of water increases, the child becomes affected with nausea, sickness, starting during sleep, screaming, and other disorders of the animal functions, as convulsions, &c. without any apparent cause; at length the brain becomes so compressed as to produce dilatation of the pupils of the eyes, a variable pulse, with evident stupor. It is commonly fatal.

CAUSES. — The effusion of serum in the ventricles of the brain is generally considered to be the consequence of inflammation, but it is more probably the effect of peculiar irritation in the secreting membranes. The capacity of the skull being adapted to the brain, an enlargement of the skull, which takes place in a rickety subject, would be productive of an effusion of serum, or what is vulgarly termed a watery head. An effusion of serum in the tunica vaginalis, producing hydrocele, or in the cavity of the abdomen, occasioning ascites, may with equal propriety be attributed to inflammation, as an effusion of serum in the ventricles of the brain.

TREATMENT. — This disease is so gradual in its progress, that its nature is not evident till the effusion of serum is so considerable as to render all efforts to produce its absorption ineffectual. The most active means must be employed to stimulate the absorbent vessels of the brain, for the removal of the accumulated serum; for this purpose a perpetual blister over the scalp, gentle electric shocks through the head, and the exhibition of mercury, are the most powerful remedies.

One or two grains of calomel may be given in a little jelly three times a day, or half a drachm of the strong mercurial ointment may be rubbed on the inside of the thigh or arm twice a day, till it enters the skin. Some practitioners recommend the ointment to be rubbed over the blister for the purpose of being more speedily taken up into the system; and, if the patient can bear it, it is certainly to be preferred. Five drops of the muriated tincture of steel may likewise be given in a little water two or three times a day. The strength of the system should be supported by beef-tea, arrow-root, and a little wine.

If the brain be evidently in a state of inflammatory excitement, or if there be an increased afflux of blood to it, and the system be not considerably reduced, or the whole sanguiferous system, rather in a state of plenitude than otherwise, blood should be abstracted by leeches, or from a vein of the arm and blisters, or the mustard poultice applied to the upper part of the feet, or just above the ancles, and the bowels well emptied every day by a dose of the basilic powder. The exhibition of calomel, or the mercurial friction above recommended, would in this case be proper; but the muriated tincture of steel, or any preparation of iron, would be highly improper.

In every other part of the body but the brain, absorbent vessels may be demonstrated; but in the brain, an absorbent can very rarely be discovered by the most minute examination; but as the thin parts of extravasated blood in the brain are absorbed, there can be no doubt of their existence in this organ; but the fact of their being less abundant than in any other part of the body, is probably the reason that the disease is generally fatal.

OF WEN. — This disease consists in an enlargement of the thyroid gland, situated on the front of the neck, in consequence of disease or debility of the absorbent vessels, or increased action of the secerning vessels of the part. Several remedies have been suggested for the cure of this disease, of which the burnt sponge has often answered. Lozenges of this article were much recommended by the late Dr. Cheston, an eminent practitioner of Gloucester, and other respectable surgeons have found this form to answer best; the advantages of which they attribute to its gradual solution in the mouth. Rubbing the surface of the tumour every night with salt, by rousing the action of the absorbent vessels, acts as a powerful auxiliary, and has succeeded in removing glandular accumulations of considerable magnitude. The hand of an executed criminal, by producing a considerable sensation on the mind, has, on the same principle, succeeded in some instances. A dead toad hung round the neck is, in some countries, a favourite remedy.

In the fourth number of the Monthly Gazette of Health, a few cases of this disease are given, which were cured by mercurial friction.

The tincture of iodine has been lately much recommended by many eminent practitioners of Germany, Italy, and France, as an infallible remedy for wen. In this country it has had an extensive trial, and many cases of large wens, of long standing, cured by it, have been published by respectable surgeons. The dose is from twenty to thirty-five drops, twice a day, in a wine-glass of marshmallow-root decoction. Some writers recommend the tumour to be well rubbed every night with an ointment of the hydriodate of potass. — (*See* IODINE, p. 162, and DISCUTIENT OINTMENT (B), p. 128.)

In some cases, the source of its nourishment may be nearly cut off, by applying ligatures to the principal arteries that supply it with blood, which, when the vessels are superficial (as is often the case), is neither a painful nor a difficult operation.

There are several species of tumours that form in different parts of the human body, according to the nature of their structure, which are vulgarly termed wens. I some time since removed one from the back of a carpenter (Mr. Thomas) at Abbey Tintern, in Monmouthshire, which weighed, after it was freed from blood, sixteen pounds twelve ounces. It had been gradually growing nearly twenty years, and had latterly, from its magnitude and weight, become so troublesome as to prevent his following his occupation, which he has since pursued with greater ease than he had done for many years. The removal of a *wen* (which is always situated on the anterior part of the neck) by the knife is, on account of the great blood-vessels connected with it, a dangerous operation.

OF WHITES, OR FLUOR ALBUS. — This disease consists in a slimy or puriform discharge from the passage leading to the womb, termed vagina. It varies in appearance, consistence, and quantity, in different persons. It is generally an affection of the vagina, but sometimes it proceeds from the womb. Women of an erysipelatous habit, generally termed scorbutic, are most subject to it, and in them it proves very obstinate.

CAUSES. — It is the effect both of relaxation and inflammatory excitement. Frequent miscarriages, difficult labour, and debility, are noticed as causes of this disease.

TREATMENT. — When it arises from relaxation, the Tonic Mixture (C), p. 115, or Tonic Pill (B), p. 118, or if the patient be likewise of a nervous temperament, the Nervous Mixture (C), p. 113, generally succeeds in effecting a cure.

Cold bathing, or the local application of cold water, by means of a *bidet*, is a very important remedy for this disease, and should be used every morning, provided the patient be free from cough or difficulty of breathing, and not subject to giddiness or a determination of blood to the brain.

If the discharge continue after the due employment of these means, an astringent lotion may be used with advantage, as the following:—

Take of the Pomegranate-rind, bruised,	3 drachms.
Boil in a quart of Water to	1½ pint.
Then strain, and add Alum,	1½ drachms.

To be injected two or three times a day, by means of a female syringe.

The due employment of these remedies, with moderate exercise and a nutritious diet, will generally succeed in curing the disease, when the cause is debility.

If the fæcal evacuations be of a pale clay or very dark colour, or the patient be subject to erysipelas, or eruption of the skin, four grains of blue pill should be taken every other night for about ten days or a fortnight.

When fluor albus occurs in a person of a robust or plethoric habit, or when it is attended with the ordinary symptoms of local inflammation, it may be considered of an inflammatory nature; in which case, instead of the tonic medicines above recommended, the patient should take every, or every other morning, two drachms of the sulphureous purgative salts, p. 150, and ten grains of nitre powder, with fifteen of gum-arabic powder, in a glass of barley-water, or almond emulsion, three times a day; which, with a low diet (free from all kind of stimulants), will succeed in curing it. In this variety, the application of cold water, by means of the *bidet*, will also prove a powerful auxiliary; but if she be subject to a determination of blood to the head or to the chest, this remedy, as well as cold water applied

to the extremities, would be improper. If the system be plethoric, abstraction of blood from a vein will also be necessary.

If the sulphureous salt should occasion more than one or two motions in the course of twenty-four hours, the dose should be diminished or taken less frequently.

When in a female after the age of forty the discharge is of an *ichorous* nature, and of a *dark* or *yellowish* colour, and attended with *pain* in the region of the womb, or with irritation, burning heat, difficulty, or heat of urine, troublesome itching, a sense of bearing down, and a frequent inclination to go to stool; pains on the approach, or during the time of menstruation; and particularly if pieces of coagulated blood (generally termed clots) are discharged; some *organic* disease of the womb may be suspected, especially if they occur about the time of the cessation of the menstrual discharge; in which case, the patient should lose no time in availing herself of the advice of an experienced surgeon.

The buchu leaves have lately been introduced as a remedy for this disease, and in many cases of long standing, the tincture, in the dose of two tea-spoonsful in a wine-glass of the decoction of marshmallow root, has succeeded in curing the disease and improving the general health. In obstinate cases it may be given in an infusion of the leaves, in lieu of the decoction of the marshmallow root. This remedy, on account of allaying morbid irritation, is applicable to every species of fluor albus.

The diet must depend on the general health of the patient. If she be weakly, or of a delicate constitution, it should be nourishing, and easy of digestion, such as blanc mange, and the vegetable and animal jellies, with a small portion of meat; a little good Port or white wine may also be allowed, but water should be adopted in lieu of malt liquor; but if the complaint be attended with much irritation or pain on making water, it will be advisable to avoid pepper and much salt, but not otherwise. Warm diluent liquors, as tea and coffee, and the use of spirituous liquors, are very improper, and will certainly counteract the effects of medicine. — (*See* DIET, p. 199, and SASSAFRAS NUT, p. 156.)

OF WHITE SWELLING. — This disease is a scrofulous enlargement of a joint, which constitutes what is termed scrofula. —(*See* SCROFULA, p. 429.)—It is often brought on by accidents, as bruises and strains, and sometimes by frequent attacks of rheumatism. The knee, ancle, and elbow-joints, are generally the seats of this disease. It begins with an acute pain in the interior part of the joint, which is sooner or later succeeded by a gradual enlargement of the ends of the bones forming the joint, with a distention of the veins of the skin surrounding it.

TREATMENT. — The first stage of this disease being inflammatory, the object of topical management is to prevent the formation of matter, by the application of leeches, which should be repeated every, or every other day, according to the urgency of the case; the whole joint should then be kept continually wet and cool with the following lotion, by means of folds of old linen: —

Take of Crude Sal Ammoniac,	½ ounce.
Dissolve in Spring Water,	1½ pint.
Then add Vinegar,	½ pint.

Two drachms of either of the Neutral Salts, No. 2, should be taken every morning, and the medicines already recommended for the king's evil, to correct the system, adopted. If the system be in a plethoric state, or approaching to it, general bleeding will be necessary.

When the part is in a quiet state, — *i. e.* free from pain, and cool, — friction with the hand is often very beneficial, by rousing the action of the absorbent vessels, and thereby producing a mutation of the diseased structure. The friction should be continued for two or three hours twice a day, with a little hair-powder to prevent irritation of the skin. If the friction produce pain or inflammation, it should be discontinued, and a small blister applied to each side of the joint, the discharge of which should be kept up by dressing them every morning with the Savin Ointment, for which purpose, the thin skin of the blister should be entirely removed. The limb should be kept perfectly quiet, and when free from pain and inflammation, the joint may be gently moved once a day, to prevent adhesion and consequent stiffness. By the external irritation and discharge of blisters continued for a length of time, with the constitutional treatment recommended for scrofula, many limbs have been saved, which by a hasty surgeon would have been condemned to the knife. When the blisters are healed, the plaster of gum ammoniac and cicuta may be applied with advantage: and if there be a disposition on the part to recurrence of the mischief, an issue will also be necessary. The same local treatment is proper for the enlargement of a joint from rheumatism, which, if attended with fever, requires the constitutional remedies as recommended for acute rheumatism.

When the disease is rendered quiescent, *i. e.* free or nearly so from pain, and the heat reduced to the natural temperature, and the whole system is corrected or in a quiet state, the Discutient Plaster (C), p. 130, applied sufficiently large to envelope the joint, has generally a very happy effect in reducing the enlargement, and when continued for some weeks (renewed every ten days) in destroying the local disposition to the malady. Attention

should be paid during its use to the corrective treatment of the constitution, and exercise avoided.

In cases of chronic enlargements of a joint, and of anchylosis, or stiff joints, Mr. Summers, an eminent surgeon of London, has been very successful, by a mode of treatment which was first employed by himself. It consists of pressure with the end of the thumb on different parts of the joint, and on the muscles connected with it, with a motion of the limb, which, by bringing the muscles into action, and more under the influence of the mind, promoting absorption of the deposited lymph, and separating adhesions, has succeeded in many cases which had been declared hopeless by hospital surgeons.

OF WHITLOE, OR FELON. — This disease consists in an inflammatory swelling of the end of a finger, the pain and obstinacy of which depend on the part attacked; if the skin be only affected, the pain is trifling, and after the effused fluid is discharged, it soon heals, without endangering the nail; but if situated in the membrane beneath the skin, which is generally its seat, the symptoms are more violent; and if the membrane covering the bone be affected, the inflammation often extends to the hand, and the pain up the arm. The lymphatic vessels, and the gland in the arm-pit, are also often inflamed: in this latter case, if the disease advance to suppuration, the bone generally becomes carious.

CAUSES. — It is frequently occasioned by external violence, particularly from punctures and bruises; but it happens more frequently without any evident exciting cause, in which case it is probably connected with a bad habit of body.

TREATMENT. — As the matter that forms in this disease is generally of that acrid nature as to corrode the soft parts, and even the bone, it will, in all cases, be advisable to prevent suppuration, by applying four or five leeches, and encouraging the bleeding by immersing the hand in warm water after the removal of the leeches; when the bleeding has ceased, the finger should be wrapped up in soft linen, and frequently moistened with spirit of wine. The Purgative Mixture (A), p. 113, taken as there directed, will also be necessary; and if the patient be of a plethoric habit of body, or the arm much inflamed, six or eight ounces of blood should be taken from the arm. If these means should fail of dispersing it, an incision should be made into the part, nearly to the bone, which will effectually prevent suppuration, and thus preserve the nail and the bone.

When an infusion of serum has taken place, it should be let out as soon as possible, to prevent an extension of the internal mischief, particularly if deeply seated. A poultice may then be applied, which, with the occasional use of a little brandy, will effect a cure. But so many untoward circumstances happen in

such cases, such as caries of the bone, the formation of fungus under the nail, &c. that it will always be advisable to apply to an experienced surgeon, whose timely assistance will prevent much serious mischief.

OF WORMS. — The species of worms that are most prevalent in the human body are three, viz. *ascarides*, or small round and short worms, which chiefly occupy the lower intestine; the *teres*, or round and long worms*, which are generally seated in the small intestines and stomach; and the *tænia* or tape-worm, which, for the most part, occupy the whole tract of the intestinal canal.

SYMPTOMS. — The symptoms denoting the existence of worms are common to the different species, viz. indigestion, with a variable appetite; foul tongue; offensive breath; hard, full, and tense belly, with occasional gripings and pains about the navel; heat and itching sensation in the rectum and about the anus; the eyes heavy and dull; itching of the nose; short dry cough; grinding of the teeth; and starting during sleep, attended often with a slow fever.

* The round long worm being generally considered to be of the same nature as the earth-worm, I shall briefly notice in what their difference consists. On examining their outward appearance with attention, the human worm will be found more pointed at both extremities than the common earth-worm. The mouth of the human worm consists of three rounded projections, with an intermediate cavity; whereas the mouth of the earth-worm consists of a longitudinal fissure, situated on the under surface of a small round head. Upon the under surface too of the human worm there is a large semilunar fold of skin, into which the head retreats, and out of which it is elongated, which is entirely wanted in the teres. The anus of the human worm is situated on the under surface, a little way from its posterior extremity, and appears like a transverse curved fissure. The anus of the earth-worm is an oval aperture at the very extremity of the worm. The outward covering or skin of the human worm is less fleshy, and not so strongly marked by transverse rugæ as the earth-worm. In the latter there is often to be seen a broad white band surrounding the body of the worm; but in the teres this is entirely wanting. On each side of the human worm there is a longitudinal line well marked; in the other worm there are three such lines upon the upper half of its surface, but very faintly marked, so as to be hardly discernible. The human worm has nothing resembling feet, whereas the earth-worm has on its under-surface, and towards its posterior extremity, a double row of processes on each side, very evident to the eye and finger, which manifestly serve the purpose of feet on the locomotion of the animal. The internal structure of both animals is also extremely different; in the human worm there is an intestinal canal, nearly uniform and smooth in its appearance, which passes from one extremity of the worm to the other. In the earth-worm there is a larger and complex stomach, consisting of three cavities, and the intestinal canal is likewise larger and more formed into sacculi than the former; the parts subservient to generation are very different in both; there being in the human worm a distinction of sex, the parts being different in the male and female, whereas the common earth-worm is an hermaphrodite. The human worm depending upon the body it inhabits for a supply of heat, dies almost immediately after it is expelled.

CAUSES. — As worms are generally found only in persons of a leucophlegmatic habit, and of weak digestive organs, indigestion may be noticed, if not as the principal cause, at least as favouring the generation. There is nothing, however, in the economy of animals more involved in mystery than the generation of parasitical animals. Were they found to exist in situations out of the bodies of living animals, one might readily suppose that their eggs are taken into the stomach with the food or drink, and there gradually evolved into animals: this, however, is not the case, for they are evidently incapable of existing for any length of time in any situation, except within a living animal body, which appears to be the proper place for their growth and residence. We might, therefore, be led to another supposition, viz. that they are really formed from the matter contained in the intestines, which previously had no regular organization; but this idea is widely different to all analogy in the production of animals. The origin, therefore, of such animals is a subject of much obscurity. That they are not produced by ovula of animals taken with the food, is not only obvious from their being found in the liver, cellular substance of the extremities, and brain, but from the frequency of another kind of animal, generated in the kidneys, brain, and liver, named Hydatids.*

TREATMENT. — The indications of cure are, first to clear the stomach and intestines of redundant slime, and afterwards to strengthen the stomach and bowels, so as to destroy the disposition to their generation.

The first object is best accomplished by a brisk cathartic medicine, as the basilic powder, a dose of which should be taken every second or third morning, for at least a fortnight†, and if the patient has arrived to the age of puberty or advanced beyond it, the Tonic Mixture (B), p. 115, in the intermediate time. Lime-

* There is not a doubt of hydatids and tubercles being animals: they have been seen to move when taken out of the liver, and they retain their power of motion for some time when put into warm water. The origin of such animals is extremely mysterious; and when the whole evidence of one and the other opinion is compared together, the grounds for believing that in some orders of animals equivocal generation takes place appears stronger than those for a contrary opinion. Persons who wish to consider those animals more minutely, will find an excellent account of them, published by Dr. John Hunter, in the Medical and Chirurgical Transactions.

† At the request of several friends of this work, the author has ordered the Basilic Powder to be kept at the Chemical and Medical Hall, 170, Piccadilly, well blended with gingerbread, and carefully divided into nuts, containing twenty grains each, which, in consequence of being well mixed, may be divided into doses proportioned to the age of the patient. In this form it is readily administered to children, and the ginger in the composition corrects its griping quality; — while the most active part of the medicine, being very ponderous, is frequently lost by being administered in a thin vehicle.

water, being capable of dissolving the mucus in which the worms are involved, may be given to children, in the quantity of three table-spoonsful, two or three times a day.

In domestic medicine, an infusion of Indian pink has been generally employed for the destruction of worms in children, and often with success. The giddiness, stupor, dimness of sight, redness and pain in the eyes, that sometimes affect the patient during the use of this medicine, prove that it should be administered with caution, and not till after safer vermifuges have been tried in vain. The decoction of quicksilver is also a popular remedy.

Powdered rust of iron is a very excellent vermifuge medicine, and where the complexion of the patient is pale, or the system weakly, is preferable to any other. The intestinal canal should be prepared for its exhibition by an active dose of the basilic powder, which should be repeated once a week for three weeks or a month. The powdered rust of iron is recommended by Dr. Rush to be given from five to thirty grains, in a little currant jelly or brown sugar, for children between one and ten years old. "Of all the worm-medicines that I have administered," observes this eminent physician, "I know none more safe and certain than this simple preparation of iron. If ever it fails of success, it is because it is given in too small a dose." Taught by an old sea-captain, who was cured of tape-worms by this medicine, Dr. Rush has given to adults from two drachms to half an ounce of it every morning for three or four days, not only with safety, but with uniform success: the addition of ten grains of granulated tin has been found to increase its vermifuge powers.

The hairy down which covers the pods of cowage, made into an electuary with treacle, is much recommended by Mr. Chamberlayne, a surgeon of London. The electuary, in the dose of a tea-spoonful, is said to be perfectly safe, and that two or three doses generally suffice.

The common male fern-root has been much extolled as a certain remedy for the *tape*-worm. The following directions are given for its use: — "Two or three drachms of the powdered root to be taken in the morning, no supper having been taken the night before. It generally sickens a little. A brisk purgative, with a little calomel, (as the Basilic Powder, No. 36,) is to be given a few hours after, which sometimes brings off the worm entire; if not, the same course must be followed at due intervals." For the success of this remedy, it is necessary the root should be *recently* gathered; as after being kept long in the shops, its activity is diminished or destroyed. It should be used recently dug, being brought to a state fit for powdering,

by drying in a gently-heated oven, or within the gentle heat of a fire.

Since the publication of the last edition of this work, the spirit of turpentine has been found to be very efficacious in expelling the tape-worm: it is given in the quantity of a large tea-spoonful, mixed with a little honey, twice a day. In some instances the dose was increased to a large table-spoonful. It has been found most efficacious when administered with the croton oil as the anthelmintic draught, p. 106. The patient should take this medicine before breakfast, and continue in bed two hours after he has swallowed it, an horizontal position having been observed to prevent its affecting the head.

The *ascarides*, or round short worms, are principally lodged in the lower intestines, and, through being enveloped in mucus, are often very difficult to dislodge. With the use of the basilic powder, it will be proper to employ either of the vermifuge clysters, p. 104, as there directed.

In the 90th number of the Gazette of Health, a mode of removing these worms from the rectum by manual means is much recommended by a physician of Edinburgh.

PREVENTION. — For the prevention of worms, it will only be necessary to attend to the state of the digestive organs, and to avoid such diet as is likely to disorder them, as acid or unripe fruit, fermented liquors, &c. If the pale or dark appearance of the fæces should indicate a deficiency of the secretion of bile, the patient should take a grain of prepared calomel at bed-time, for five or six nights; for nothing is more destructive to the life of worms than a proper secretion of bile. — (*See* INDIGESTION, p. 403, and ANTHELMINTICS, p. 9.)

Children are very subject to an irritative fever from having been indulged in too great quantities of fruit or acescent food, which is generally attended with the symptoms I have noticed as denoting the existence of worms. This fever was termed by Dr. Musgrave the *Spurious Worm Fever;* and by Dr. Butter, the *Infantile Remittent Fever.* Dr. Hunter states, that he dissected "a great number of children who had been supposed to die of fever arising from worms, in whom he did not discover the least appearance of worms." This fever is evidently symptomatic of a disordered state of the digestive organs, always attended, more or less, with some visceral obstruction or tumefaction of the mesenteric glands, and may be cured by a gentle emetic of ipecacuan powder, the occasional use of the basilic powder, and a little stomachic medicine, as camomile-tea, with the prepared natron, which will also prove of service should the fever arise from worms.

No disease offers such a field for the imposition of quacks as worms. Mercury is the basis of all the worm-specifics that have fallen under my examination. The articles with which mercury is mixed to form it into lozenges becoming acid by keeping, the mildest preparation of mercury is often converted into a powerful poison, nearly equal in violence to arsenic; besides, the mercury not being well blended with the other ingredients, from the quantity that is made at a time, it may, and I know it has happened, that one nut has contained an over-dose of mercury, while another in the same box has scarcely contained any. To these circumstances the many fatal effects that have followed the exhibition of advertised remedies for worms may be attributed.

In my late treatise on the means of regulating the stomach and bowels, and correcting the varieties of temperaments, &c. &c., I have given very copious directions for correcting the constitution which favours the production of worms, rickets, and mesenteric affections in children, under the head of the Leucophlegmatic or Verminous Temperament.

APPENDIX

TO THE

SECOND PART OF THE MEDICAL GUIDE.

THE MANAGEMENT OF CHILDREN.

It appears by the annual bills of mortality, that no less than one half of the children born in this country die before they attain the age of eight years. * Of late years the causes of this mortality, peculiar to the human race, have been so far investigated, that many of the vulgar errors in nursing, handed down from time immemorial, have been abandoned, and nature and reason begin to predominate over prejudice and ignorance. The calamity is, doubtless, in a great measure to be attributed to improper feeding and clothing. That the method of nursing has been wrong, needs no other proof than the frequent miscarriages which have attended it, the death of many, and the deformities and ill health of those that have survived. The mortality of infants is, in some degree, a natural evil; but the majority of instances may certainly be ascribed to neglect or officiousness; for the brute creation, guided by instinct, or the dictates of nature, seldom perish until they have run their natural course; while man, the child of art and refinement, proud of his superior mental attainments, is very liable to err. †

Of the Clothing of Children. — The first great mistake arises from the prejudice of nurses, in overloading and binding children with flannels, swathes, stays, &c. which render a healthy child so tender and chilly, that it cannot bear thé external air ‡:

* The average of the bills of mortality for ten successive years, in London and its environs, demonstrates that more than one half of the children born within their limits die under seven years of age. In Manchester and Birmingham the proportion is nearly the same, but throughout the country very considerably less. Some have estimated the death of children in L ndon to be at least double that in the country.

† Whatever may be the advantages of modern refinement to society, the life of man is certainly abridged by it; for uncultivated man is not only exempt from a number of diseases to which the civilized world is subject, but rarely dies till he has arrived to the limited period of his existence.

‡ The clothes of children should, in all cases, be proportioned to the climate and temperature of the atmosphere.

and if by accident it should be exposed to a refreshing breeze, the consequence is frequently a serious inflammatory affection of the lungs or bowels; or if the child should survive the first month, it is then sent into the country, to be reared in a house that admits wind and air from every quarter! Now, a new-born infant, being *naturally warmer* than an adult, requires in proportion less clothing, which should be put on so loose, that the bowels may have room, and the limbs liberty to act and exert themselves, that the circulation of blood, through the *superficial* vessels may not be impeded, or malformation or unnatural swellings be produced by *partial* compression. To the latter are doubtless attributable the many distortions and deformities *, particularly among females, who suffer more in this respect than males. The great pleasure a child manifests on being divested of this superfluity of dress, by all its powers of expression, one would suppose sufficient to convince nurses, were they capable of making just observations, that the free use of its muscles is more agreeable to its feelings, as well as necessary for its growth and strength.

A flannel waistcoat, *without* sleeves, made to fit the body, and tie *loosely* behind, with a petticoat †, and over this a kind of gown — both of the same thin, light and flimsy materials — (the petticoat should not be quite so long as the child, the gown a few inches longer) — with one cap only on the head, and the linen as usual, I think abundantly sufficient for the day, laying aside all swathes ‡, bandages, stays, and the contrivances that are most ridiculously used to close and keep the bones of the head

* The negro children in the West Indies are suffered to lie and tumble about on the floor from their earliest infancy in a naked state; and notwithstanding the hardships they undergo at every period of life, there is scarcely a deformed negro to be seen amongst them: a convincing proof that the *pressure* of clothes is a means of producing deformity, when we see on the other hand so many victims to it in this country.

† In putting on the petticoat, great care should be taken not to confine the motion of the ribs. The structure of the bones of the chest are very delicate, and the least pressure will produce distortion. The bowels of a child after two years of age, and some at an earlier period, require to be gently supported, and for this purpose a fine thin flannel waistcoat will answer best. It should be made to lace behind from the bottom upwards. The intention of this waistcoat is merely to support the bowels, so as to prevent the relaxation and obstruction of the viscera, which often take place in weakly children, and predispose them to rickets and bowel complaints. Beneath the laced part there should be a slip of flannel to defend the skin, which at the same time will support the back-bone.

‡ It sometimes happens that a portion of intestine protrudes at the navel, through violent crying: in which case, a plaster of diachylon, of the size of a dollar, may be applied to the part, and over it a *soft broad* piece of thin flannel, in the form of a roller. If the bandage be applied tight, it may not only hurt the bowels, but produce rupture at the lower part of the belly.

in their place; the latter of which, by confining and compressing the brain, have no doubt been productive of very serious mischief to that organ, and by keeping up irritation in it, may often produce that formidable disease commonly called Watery Head. Shoes and stockings are likewise *unnecessary* incumbrances; the latter keep the legs wet and dirty, if they are not changed two or three times a day, and the former too often cramp and hurt the feet, so as to prevent the child learning to walk. Children in this simple dress would be *perfectly easy*, and enjoy the free use of their limbs * and faculties. They should be put into it as soon as they are born, and continued in it till they are three years old, when it may be left off for any other more genteel and fashionable. They ought to be changed at least every day, to keep them free from sourness, which is prejudicial to the tender state of infancy. The night-dress should be only a *loose* flannel shirt, and less in quantity than that which is worn during the day, otherwise the child will be very liable to be affected with cold and complaints of the bowels. — Tape should be used instead of pins in putting on their napkins.

Of the Feeding of Children. — In the feeding of children, great care should be taken that their food be wholesome and good, and that it be given in such quantity only as the body requires for its support and growth. In the business of nursing, as in physic, we should endeavour to follow the dictates of nature. When a child is born, it is full of blood and excrement; and it requires some intermediate time of abstinence and rest to compose and recover it from the effects of the pressure it may have sustained in the birth; as well as the slight fever arising from the revolutions it undergoes after delivery. If the child has sustained no injury, it will soon fall into a sound sleep of six or seven hours, when it will awake refreshed and hungry. It should then be put to suck †: if there be no milk, the sucking of the

* The unnatural custom of confining the limbs of a child during night cannot be too much reprobated or guarded against by parents: a simple contrivance to confine the hands, in order to prevent the child from rubbing or scratching its eyes, is often necessary; but the confinement of the legs should on no account be allowed.

† If the nipples of the mother be short, which is generally the case with the first child, they should be first drawn out by the nurse; and in case of being tender, it will be proper to wash them with a little brandy instead of the poisonous preparation of lead, recommended by quacks and officious nurses. If the mother has small, tender, or ulcerated nipples, the prepared nipples (the teats of calves) will enable her to give suck with great comfort. I have, in many instances, found them to answer when the mother, through ulceration or total deficiency of nipple, could not otherwise have suckled her infant. The ease and advantages they afford are so very considerable and important, that it is much to be regretted that they are not better known to the faculty.

infant will in a few hours infallibly bring it; and if nothing else be given, the child will grow strong, and the mother perfectly recover in a few days. The general practice of forcing down a child's throat, as soon as it is born, a lump of butter and sugar, or a little oil and syrup, with a view to cleanse the bowels, is exceedingly pernicious. * The mother's *first* milk is of a purgative nature, and cleanses a child of its excrements, without griping or disordering the stomach or bowels; indeed, such is its gentle aperient property, that no child can be deprived of it without manifest injury. † By degrees, the milk becomes less purgative, and more nourishing, and is unquestionably the best and only food the child likes, or ought to have, for *at least three* months. The call of nature should be waited for, to feed it with any thing more substantial; and the appetite always precedes the food, not only with regard to the daily meals, but those changes of diet which increasing life requires.

I am well convinced that nine in ten of the diseases of children may justly be imputed to the mistakes of nurses, both in the quality and quantity of food. With respect to quantity, it is a most ridiculous error to suppose, that whenever a child cries, it wants victuals, and thus to feed it twelve or more times in the course of a day and night. If the child's wants and motions be *diligently* and *judiciously* attended to, it will be found that it seldom, if ever, cries but from pain. Children, no doubt, suffer very acute pain from spasms, in consequence of over-distention of the stomach by food; the nurse, notwithstanding, in order to pacify it, will persist in forcing down its throat fresh quantities; or otherwise, with the same view, it is put to suck, which will often relieve it

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Another frequent obstacle to suckling is inflammation of the gland of the breast, to which young mothers are very subject. The object in the treatment of this often very painful affection is to prevent suppuration or the formation of matter, by the application of leeches to the part, and the discutient lotion, No. 102 (without camphor), and the occasional use of an aperient dose of jalap or castor oil. The milk should be drawn off very gently by the nurse or child. In consequence of the increased determination of blood to the breast, and the irritation kept up in it by its office of secreting milk, the inflammation generally advances to suppuration, in spite of all our efforts to prevent it. When this is the case, a poultice of linseed powder should be applied and continued till the part has healed. After the abscess has broken, the inflamed skin may be washed with spirit of wine or brandy twice a day, and the ulcer or opening covered with lint. Ointment is seldom necessary.

* A lady of respectability in the city of London had nearly lost her infant through the nurse giving it, soon after it was born, a table-spoonful of wate., in which the end of a red-hot poker had been put for a few minutes: this was done, as she stated, to prevent the thrush.

† If the infant has been deprived of the first milk by any untoward occurrence, a little oil of almond or fresh castor-oil may be given for the purpose of emptying the bowels.

by producing vomiting. If the stomach be frequently supplied with food, or be overloaded, it is impossible the whole can be properly digested; and hence, by undergoing fermentation, a quantity of air is disengaged, and acidity generated, which, by producing spasms and irritation in the stomach and intestines, give rise to inward fits, convulsions, and not unfrequently inflammation of the bowels. The sensation of hunger being unattended with pain, a very young child will make other signs of its wants before it will cry for food. If it be healthy and quite easy in its dress, it will very rarely cry at all. Children that are fed only four or five times in twenty-four hours, are more healthy, active, and cheerful, than those who are never suffered to be hungry. The great fault in the quality of the food is its not being simple enough. The addition of spices and wine to their pap, gruel, or panada, is unnecessary; they were first only introduced by luxury, to the great destruction of the health of mankind. A child should not be kept entirely on vegetable food, on account of its tendency to fermentation in the stomach, and to the consequent production of an acid and air which are the exciting causes of many diseases. Man being partly carnivorous, his offspring should not be entirely deprived of animal food, which corrects the acescent quality of vegetables. * The mother's milk, when good, appears to be a mixture of vegetable and animal properties; in the due proportion of which consists that salubrity of aliment our nature seems to require. I would advise, therefore, that one-fourth of their diet be *thin* and *light* broth, free from fat, with a little arrow-root, bread, or rice-flour. The admixture of animal jelly with that of the arrow-root, recommended under the head of arrow-root, is likewise an excellent combination for weakly children. If this combination should prove too heavy, or if the child should refuse thick food, asses' milk may be substituted for it. — (*See* ARROW-ROOT, p. 155.) The other part of children's diet may be a little toasted bread, or tops and bottoms, boiled with a little water, almost dry, and then mixed with *fresh* milk, *not* boiled, the properties of the milk and its taste being much changed by heat. This, *without* spices, or any other pretended amendment whatever, will be perfectly light and wholesome. A sucking child may be fed twice a day at first, and not oftener; once with the broth, and once with the milk thus prepared, in quantity just to satisfy its hunger. Children should

* When this acid corruption of food predominates, which is obvious from *crude, white,* or *green* stools, gripes and purging, a little magnesia, or lime-water (see Antacids, p. 6), in mint-water, will prove the best remedy; but if attended with *much pain* in the bowels, known by the child's kicking and drawing up its legs, the absorbent mixture will prove more serviceable than magnesia alone.

always be fed in a sitting posture, that swallowing may be more easy to them. If a child be not accustomed to feeding at night, it will not want it, but get into a habit of sleeping all or most part of the night very quietly, only waking when its napkin requires to be changed. It is night-feeding that makes children so over-fat and bloated. At the end of twelve months, the child should be weaned by degrees, that it may neither feel nor fret for the want of the breast.

When the bowels are very irritable, a small quantity of lime-water, as a dessert-spoonful or two, may be added to the article of food three times a day. A lady of Yorkshire, in the ninety-first number of the Gazette of Health, states that this addition, simple as it may appear to be, rendered three weakly children very healthy, and that she has found it an efficacious preventive of rickets.

Strong liquor of all kinds should be scrupulously avoided. The custom of giving a child spirits in its food, or in the form of toddy, with the supposed view of *preventing* gripes, is very pernicious. Griping pains or spasms in the bowels I have uniformly observed to be the consequence of overloading the stomach; the effect of which is the production of an acid, which occasions the griping pains, or spasmodic affection of the intestines. The best preventive is, therefore, *proper* meals, after *proper* intervals; and, when the food becomes acid, the best corrective is lime-water, which may be employed in lieu of common water, with a few drops of the essence of dill, or of caraway seeds, when the bowels are disturbed by gas. Such liquors, although well diluted, applied to their tender digestive organs, must unavoidably impair their functions, and may lay the foundation for a train of the most dangerous complaints. It has been urged in favour of this horrid, unnatural practice, that many children, accustomed to a little spirits for a few days after birth, continue to thrive uninterruptedly; but such arguments only tend to prove that the vigour of their constitution was equal to the counteraction of the usual effects of strong liquors.

Were this plan of nursing literally pursued, the children kept clean and sweet, tumbled and tossed about, played with and kept in good humour, and carried out every day when the weather admits of it, I am confident, in the course of eight or nine months, most children would become healthy and strong, and able to sit without support; to divert themselves an hour at a time, to the great relief of their nurses; would very readily find the use of their legs, and very soon shift for themselves. By this method of nursing, likewise, *hereditary* diseases may be suspended, and in course of time every taint and infirmity, the king's evil and insanity not excepted, may be worn out.

It is a duty incumbent on parents to have their children nursed under their own eyes, and to make use of reason and common sense in superintending and directing the management of them; and that of the mother to *suckle her infant:* if she be healthy, it will confirm her health; if weakly, it will, in most cases, improve it.* It need be no confinement to her, or abridgment of her enjoyments, as three or four times in twenty-four hours will be enough to give it suck. It may be fed and dressed by some reasonable servant, that will submit to be directed, and with whom it might likewise sleep. No other woman's milk can be so good for her child. *Dry* nursing is not only *unnatural*, but the most dangerous method of all; for not one child in six, thus brought up, lives a year.

Of the Exercise of Children. — All our care in the feeding and clothing of infants will not succeed, till, by due degrees, a child is brought to bear much exercise without fatigue. It should be pushed forward, and taught to walk as soon as possible, so that at the end of twelve months it may (if healthy) be capable of walking alone. It is a vulgar error to suppose children are not to be put on their legs because they are weak, or the least bent or crooked; daily experience shows crooked legs will grow, in time, strong and straight by frequent walking †, and that disuse makes them worse. The walks should

* The luxuries which modern refinement has introduced in the manner of living, although they may not prevent every woman from being a mother, certainly render many very unfit for the office of a nurse; but when the mother is of a strong constitution, she is unquestionably the most proper nurse, and ought to be advised to undertake the task on account of her own health as well as that of her infant. When the milk of a brute is employed, that should be adopted which approaches nearest to the human. The milk of women is more light and thin, and contains a greater proportion of sugary principle, than that of any other animal. Ass's milk, in these respects, approaches nearest to woman's, and next to it the mare's, then the cow's, and then the goat's.

Females predisposed to consumption are the most prolific, and during gestation the disease of the lungs is generally suspended. When a consumptive lady is delivered, it is often a nice point to determine whether she should suckle her infant or not. On account of the emaciation and weakness of the mother, most medical men suppose that suckling will hasten the progress of the disease; but so far from this being the case, I have uniformly found suckling to relieve the affection of the lungs, and to improve the general health. When the appetite is good, I would advise a consumptive mother, of a florid or plethoric habit, however emaciated the system may be, to suckle her child about two or three times in twenty-four hours, as the most likely means of restoring her to health.—(*See* Consumption, p. 305.)

It is worthy of observation, that those mothers who have not suckled their offspring are most subject to cancerous complaints of the breast and womb, and consumption of the lungs.

† Every member in a state of health acquires strength in proportion as it is exercised; and children, by being accustomed to support themselves, will soon acquire strength for that purpose. When, however, the limbs are curved, the

be gradually increased every day, till they can go two miles without weariness, which they in general are able to do in three years, if they be accustomed to it properly. From this daily exertion, they will, from the impulse of their own active vigour, soon be found running, leaping, and playing, all day long. Thus a dull heavy child may be made playful and sprightly, and a weakly one healthy and strong, and confirmed in good habits and permanent health.

There are other little niceties, which, were they observed in the nursing of children, would be of great service to them; such as making them lie *straight* in bed: I do not mean extended like a corpse, but that their limbs should be *free* and *easy*. They should be taught to use both hands alike; for employing one more than another * will not only make that hand and side of the body larger than the other, but occasion curvature or distortion of the spine or ribs; neither should they be always laid on the same side, nor carried constantly on the same arm. It would likewise not be amiss to forward their speaking plain, by repeating easy distinct words to them, instead of the jargon generally made use of by nurses.

Dr. Hamilton condemns the use of a cradle for children, on account of its being *improperly used* by nurses. I have always recommended a crib, to be so constructed as to be fixed to the side of the bed during the night, and to be easily carried from one room to another in the day-time; it must not be made to rock.

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bowels much enlarged, and the child evidently disposed to rickets, the legs may not be equal to the support of the body. In this case, the child should be supported when put on the legs. Rolling or lying on the floor is a healthy exercise, while sitting is generally hurtful. — (*See* RICKETS.)

* On this absurd custom of parents and nurses, a late author observes, "Great pains are generally taken by mothers that their children should not be *left-handed*, by which injudicious anxiety, they are prevented from the full use of that member. Nature has given us two hands alike in form, equal in strength, and equally calculated for exertion; but by the present practice this gift is in a great measure abandoned, and one of them comparatively rendered inefficient. Were the same trouble taken to make children use only their right eye, the consequence to the left eye would be exactly similar. If, therefore, I have the good fortune to persuade sensible mothers to amend this universal error, I shall enjoy the satisfaction to think that I have in no small degree contributed to the good of society. I would recommend, that children from their earliest infancy, be habituated indiscriminately to use both hands, to alternate them in all their little manual occupations, and when sufficiently grown, they should be encouraged to cut their meat, and employ their exertions with either hand." This author recommends the arms to be exercised by swinging the dumb-bells: but this exercise I have known to produce deformity; riding on the rocking-horse is far preferable. Mr. Clarke, who has paid particular attention to the exercise of children, with the view of preventing distortion, and producing symmetry, has invented a chair, which, by supporting the spine and shoulders during the sitting position, prevents distortion or curvature. This simple contrivance may be obtained at Mr. Thompson's, No. 116, Long Acre.

In *cold* weather, however, the infant ought not to be allowed to sleep by itself, as heat is absolutely necessary to keep up the vital functions of a *very young* or *weakly* infant.

> ——————————" By arts like these
> Laconia nursed of old her hardy sons,
> And Rome's unconquer'd legions found their way,
> Unhurt through ev'ry toil, in ev'ry clime."

INSTRUCTIONS FOR THE CHOICE OF A WET-NURSE, &c. — A wet-nurse should not only be clean, healthy, sober, and temperate, but likewise middle-aged, because at this period she will have more milk than the very young, and more and better than the old. Regard should be had to the time of her lying-in, and one procured who has not been brought to bed more than three months; for nature intending that a child should suck only twelve months, the milk seldom continues good much longer: about that time, women, though they give suck, are also apt to breed again; and some that are very sanguine much sooner; which, and other periodical causes, disturb and affect the milk greatly; and therefore they are not proper nurses six months after their delivery.*

The nurse's food should consist of a proper mixture of flesh and vegetables: she should eat one hearty meal of *unsalted* meat every day, with a great deal of vegetables, and little bread, and thin broth or milk for her breakfast and supper, and her drink should not be stronger than good ale or porter.

If the child is not to suck its own mother, it should have a little purgative physic in a day or two after its birth, to carry off the long-hoarded excrements: for this purpose, a little manna may be given, dissolved in water: or the nurse may take a little lenitive electuary, which, through the medium of the milk, will act on the bowels of the child: by these means, three or four stools should be procured in twenty-four hours.

The child should be kept awake by day, as long as it is disposed to be so, and great care be taken that no anodyne quack medicine be given, or means taken to lull or rock it to sleep, or to continue it asleep long, which is too much the custom of wet-nurses, to save themselves the trouble of exercising it, to the great detriment of the child's health, spirits, and mind. If the nurse has another child to support with her own milk, the sooner the child is fed, according to the method I have recommended, the better, as it is not likely she should have milk enough to support two.

* From chemical experiments, it appears that the milk of a woman varies at certain stages of suckling. If this fact, therefore, be duly considered, how important is it that this nourishment should agree with the child both as to age and its specific quality! This circumstance, at any rate, forcibly points out the propriety of a mother's suckling her own offspring, where health admits of it.

As soon as the child has cut two teeth, it may be used to the inside of roasted meat, of which it will be more fond than confectionary, pastry, &c., the latter of which only debauch the taste and disorder the stomach.

OF THE DISEASES OF CHILDREN. — Having observed that the first and principal cause of almost all diseases that assail infants, is the acid corruption of the food, and it being easier to prevent diseases than to cure them, I shall here introduce a certain preventive, if given in due time.

On the first appearance of predominating acid, which is evinced by curdled, white, or green stools, griping pains, and purging, ten grains of magnesia, combined with two grains of rhubarb powder, should be given in a little mint-water, or the prepared natron, as directed page 96, which will correct the sourness more effectually than prepared chalk, or the Gascoign ball, so generally employed by nurses: and, instead of producing a costive state of the bowels, the certain consequence of these cretaceous absorbents, the magnesia and rhubarb, or prepared natron, will gently carry off the offending matter, and at the same time strengthen the stomach and bowels. If the purging, however, should continue excessive during the use of either of these medicines, the Absorbent Mixture, p. 109, may be substituted; and provided that should not restrain it, the Astringent Mixture (B), p. 112, will be necessary. — (*See* LIME-WATER, p. 144.) — If the child be supported entirely by the breast, the mother should live more on animal food; and if it be allowed spoon-meat, it should be the vegetable and animal combination mentioned under the head of Arrow-root, p. 156. By the *early* employment of these remedies, many complaints may be prevented, which, from neglect, grow from bad to worse, and too often end fatally.

OF INWARD FITS. — The first symptoms of the disturbance of the general health termed inward fits, are an appearance of being asleep with the eyelids a little open, frequent twinkling, with the eyes turned upwards; the muscles of the lips affected with a tremulous motion, producing something like a smile, and sometimes almost the appearance of a laugh. As the disease advances, the breathing becomes interrupted, and appears now and then to stop a little, with a considerable fluttering at the heart, and intermission of the pulse; the nose becomes pinched; a pale circle encompassing the eyes and mouth, often livid, and at times disappearing entirely. The child at length becomes so irritable and nervous, that it starts at the least noise; it will then sigh, and discharge wind, which affords a temporary relief, and presently relapses into a dosing. Sometimes it struggles very much before the wind is expelled; then vomiting, or a loud fit of crying, sets all right again. As the child advances in age,

these fits generally go off by degrees spontaneously; or, by mismanagement in its diet, grow worse, and are succeeded by fever or thrush; or end in vomiting, or sour, curdled, and green stools, and convulsions of the whole body.

The late Dr. Armstrong imputed this disease to a quantity of mucus squeezed out of the mouth of the glands and fauces, by the contraction of the muscles, and pressure of the nipple in the act of sucking, which, with the addition of the mucus of the gullet and stomach mixing with the milk, renders it of a slimy consistence, by which means it is not readily taken up by the vessels for the nourishment of the body; and as there is in most children an acidity in the stomach, the milk is thereby curdled, which adds to the load; hence sickness and spasms are produced, which, by sympathy, being communicated to the gullet and fauces, occasion the convulsive motions enumerated above. Other authors who coincide with the doctor in this opinion, think that they are aggravated, if not produced, by air swallowed with the milk during sucking, which, however, is more likely to be generated in the stomach than taken with the milk; nor can the disease be attributed to a corrupt state of the saliva, inasmuch as almost all children are more or less affected with them. Besides, if the doctor were right in imputing the disease to the mucus swallowed during *suction*, children that are brought up by spoon feeding would be free from it, whereas they are most subject to it.

This complaint is produced by overloading the stomach with food, which, in consequence of becoming acid, excites considerable irritation in the bowels. The mechanical distention of the stomach by gas co-operates in producing spasms, which extending to the diaphragm, heart, and lungs, may occasion sudden death.

The acid matter formed in the stomach, by irritating its internal surface and that of the intestines, produces the disease termed thrush or aphthæ, which I have found more or less to exist throughout the intestinal canal of those infants I have had an opportunity of examining after death.

The cure will, of course, depend on avoiding the occasional cause, and by emptying the stomach and bowels by gentle emetics and the use of calomel, or the basilic powder. In case of violent purging or gripes, the Astringent Mixture (B), p. 112, will also be necessary; and the warm-bath, or a blister on the chest, if the breath be affected. The almond emulsion, made with lime-water instead of water (*see* ALMOND EMULSION, p. 146), is not only an excellent beverage, but also the best medicine, if the bowels appear to be in fault, and if the system be feverish. Spirit of hartshorn, sal volatile, tincture of assafœtida, and other *stimulat-*

ing antispasmodics, so frequently prescribed in these cases, generally aggravate the symptoms by increasing the irritation of the stomach and bowels.

In cases of inward fits, and especially if the thrush appear in the mouth, the infant should be supported entirely by the breast; and if the mind of the mother be disturbed by the affliction of the child, an healthy wet-nurse should be procured as soon as possible; for if the irritation be kept up in the stomach many days, the nervous system of the child will be so disturbed, as to produce a state of body that will re-act on the complaint, and render its recovery very doubtful.

OF CONVULSIONS OF CHILDREN. — Children are very subject to convulsive fits, from the great degree of irritability of the nervous system. Convulsions originating from a variety of causes, and, of course, requiring different treatment, a practitioner of skill and experience should always be consulted on their *first appearance.* When they are occasioned by teething, they are less dangerous.

In all cases of the convulsions of children, great attention should be paid to the state of the stomach and bowels; if they appear to be in fault, the basilic powder (see p. 85) will prove of considerable advantage, and often effectually cure them. If they arise from difficult dentition, small doses of liquid laudanum, after the due operation of the basilic powder, will be proper. — (*See* DENTITION.) — If they are attended with a determination of blood to the head, or that chronic inflammation of the membranes of the brain which precedes the disease termed watery head, blisters to the head and feet, the application of leeches to the temples, and an active purgative are necessary. If the forehead be hot, cold water should be applied to the head for two or three hours, by means of a napkin, three or four times a day; this, both in convulsions and inward fits, is an important remedy.

The convulsions of children are generally symptomatic of some local irritation, as cutting of the teeth, worms, bad digestion, &c.

OF DENTITION, OR THE CUTTING OF TEETH. — Children who are properly fed and exercised, generally cut their teeth without any inconvenience; while the systems of those who are overfed, and not sufficiently exercised, are more or less disturbed by this simple operation. *

* Hereditary diseases, which might otherwise have lain dormant, being frequently brought into action by the irritation and fever attendant on dentition, the first appearance of a cough, rickets, and various forms of scrofula, may, in general, be traced to this period. Teething is, therefore, a very critical period of the life of a child.

The period of teething generally commences between the fifth and tenth month *, and the process of the first set, which consists of sixteen, continues for nearly two years.

The bad symptoms that occur during this operation of nature are — restlessness, frequent and sudden startings, especially in sleep, costiveness, and sometimes violent looseness, fever, or convulsions. In general, those children breed their teeth with the greatest ease who have a moderate laxity of the bowels, and a plentiful flow of spittle. A costive state of the bowels, as tending to increase the inflammatory disposition of the constitution, should be guarded against, by giving occasionally a little magnesia and rhubarb, or senna; and when excessive looseness occurs, it should be moderated by a mixture with lime-water, or two drops of laudanum, in a little mint-water, to which six or eight grains of the cretaceous powder, or prepared chalk, may be added, if very violent; and if the skin be dry, and the child feverish, one grain of ipecacuana will prove useful, by increasing perspiration. Laudanum, in small doses of one or two drops, is a very important remedy in this instance; and by diminishing the general irritation of the system, will prevent fever and convulsions. If its frequent exhibition produce a costive state of the bowels, a little magnesia should be given with it, and the cretaceous powder omitted. — (*See* DIARRHŒA, p. 351.)

As children about this period are generally disposed to chew every thing they can get into their hands, they should always have something to play with that will *yield* to the pressure of their gums. The Indian-rubber, or elastic gum, well secured round the end of a rattle, I have found for this purpose to answer best. † The repeated musular action, occasioned by the constant biting and gnawing of such a substance, will increase the discharge from the salivary glands, while the gums will be so forcibly pressed against the advancing teeth, as to make them break out much sooner, and with less uneasiness, than would otherwise happen. If these means should prove ineffectual, and bad symptoms begin to appear, the inflamed gum should be lanced; and if the tooth be so far advanced as to be *distinctly* felt beneath the gum, the incision should be made down to it.‡

When the system is disturbed by teething, the treatment

* Children are sometimes born with teeth, but they seldom or never last long.

† The coral generally given to children at this time to bite, from its hardness, certainly renders the gums more callous, and, consequently, dentition more difficult and painful.

‡ Very superficial scarifications of the gums, when they are swollen, or very hot, often afford immediate relief, and quiet the whole system.

must, however, depend on the state of constitution. If it be of a full habit, purgative medicines, the loss of blood by leeches (from the head), the warm bath, and a low diet, are often necessary; but when, on the contrary, the child is weakly, of a relaxed habit, or disposed to rickets, it should be supported by a nourishing diet, and a little Port wine. In this latter instance, it seldom happens that the constitution is disturbed; but when it is, it will be quieted by cordials, which, in the former case, would aggravate the sufferings of the little patient.

In children of a full habit, a quantity of pure blood is often discharged from the intestines during dentition, which relieves the system, and prevents further mischief.

Swelling of the Breasts of Infants. — A slight distention of the breasts of new-born infants, from a collection of whitish serous fluid resembling milk, is a very common occurrence in both sexes, and is of little consequence, unless inflammation be excited by the preposterous practice of nurses attempting to squeeze out the fluid. If the parts be not irritated by pressure, it will go off gradually, without the aid of medicine; but in case of much inflammation, a little brandy may be applied, by means of some old fine linen, three times a day. Oily applications, with friction, so frequently employed by nurses, and even recommended by some practitioners, are very improper, and never fail to produce fresh mischief.

If the inflammatory symptoms should run high, the most active means should be adopted to prevent a formation of matter, such as the application of two or three leeches, a discutient lotion of equal parts of brandy and vinegar, applied cold, and an aperient medicine (magnesia and rhubarb); as the formation of matter might not only leave an ugly scar, but, in the female, might injure the gland of the breast, so as to render her at any future period unfit for the office of suckling. If the inflammation should, notwithstanding, advance to maturation, the early advice of a surgeon should not be neglected.

Inflamed or sore Eyes of Infants. — Inflammation of the eyelids and eyes, especially such as are attended with a discharge of thick matter, should, in children, be considered of too great importance to constitute a part of domestic medicine, especially the latter, which by occasioning adhesion of the coats of the eyes, produces permanent blindness: the advice of a surgeon should therefore be taken in the first instance, while there is a prospect of its being attended with advantage.

A small blister behind the ear, or to the nape of the neck, a leech to the eyelid, the Basilic Powder (p. 85), or calomel, and the continued application of a lotion made by dissolving two grains of white vitriol, and half a grain of blue vitriol, in four

ounces of water, will often succeed in curing the most obstinate attacks. The eyelids should be opened, and the lotion dropped between them, as well as applied externally, by means of folds of soft old linen. If the child be of a scrofulous habit, or subject to sore eyes on taking cold, an issue in the arm will not only correct the constitution, but, by keeping down the inflammatory state of it, render the eyes less liable to inflammation. The frequent recurrence of inflammatory attacks will produce incurable blindness.

The late Mr. Ware was very partial to the following application, in cases of inflammation of the eyes and edges of the eyelids of infants:—

Take of Prepared Calomel, - ½ drachm.
Distilled Water, - - 1 ounce.

After well shaking the vial, he directs about half a tea-spoonful to be dropped on the balls of the eyes (the lids being well opened) every night and morning. Lime-water is also highly recommended in the Gazette of Health, as a lotion for this species of inflammation of the eyes.

Of Galling of Infants. — The inflammation and slight excoriations which frequently occur in the groin, between the legs, &c. termed galling, are not only painful to the infant, but often perplexing to the nurse, especially if the child be much loaded with fat. It generally arises from inattention to cleanliness, but sometimes from the use of coarse or new napkins.

The cure may always be effected by first washing the parts with cold water, and afterwards gently besmearing the surface with fine fullers' earth moistened with water. If it be situated in the groin, or near the genitals, it should (after being washed) be covered with a little *fresh* spermaceti ointment, to defend it from the action of the urine, the saline particles of which produce much pain, and increase the inflammation. When the disease is obstinate, a little of the following alterative ointment may be gently rubbed over the affected parts, and afterwards covered with it, spread on lint or very fine soft old linen: —

Take of Prepared Calomel, and of the
Flowers of Zinc, of each - half a drachm.
Spermaceti Ointment, - half an ounce.
Mix.

Lime-water is also an excellent application when the discharge is thin or offensive. In obstinate cases, the part may be washed every night and morning with the following lotion, and afterwards dressed with the alterative ointment:—

Take of Blue Vitriol, - - 1 grain.
Sulphate of Zinc, - - 10 grains.
Elderflower Water, - - 6 ounces.
Mix.

The moistened fullers' earth may afterwards be applied as directed above.

Milk, so frequently employed by nurses as a wash in these cases, by turning sour on the part, often excites fresh irritation.

A preparation of lead, termed ceruse powder, in very general use, as a dusting powder for children, is a very dangerous application; and I have no doubt has occasioned the death of many children, by producing convulsions and inflammation of the bowels, instances of which I have noticed under the head of Goulard's Extract of Lead, No. 30.

In the Domestic Medicine of Dr. Buchan, the *sugar of lead* is imprudently recommended to be added to an absorbent powder when the parts are very sore, or tend to ulceration, without even specifying the quantity. The doctor should have known that lead, in a saline state, is a dangerous application for adults, and much more so for infants.

From the inattention of medical men to these particulars in the management of infants, their diseases are often referred to a wrong cause, and their lives sacrificed to the prejudices and ignorance of nurses.

OF THE RED GUM. — This disease consists in an eruption of small pimples on the skin, which are evident to the touch, generally red, but sometimes yellowish. They appear for the most part on the face, and sometimes on the body and extremities, in clusters or large patches. It is considered by most medical practitioners to be salutary, and it often seems to relieve infants of complaints of the bowels, and difficulty of breathing; but sometimes it is attended with no such benefit, and may frequently be traced to some imprudent practice of the nurse, either in washing the infant with brandy as soon as it was born (from a mistaken notion that it hardens the skin), or by roughly washing it with soap, for the purpose of removing the thick glutinous matter with which all infants are more or less covered when born, and which I have no doubt is intended by nature to protect the tender skin during its fœtal state, and to guard it against the action of the atmospheric air on its being born. If this slimy covering be removed in such quantity as gentle washing with warm water, and a soft old piece of linen will take off, it will leave the skin white and healthy, instead of the dark, red, and irritable state occasioned by the spirit *, soap †, and friction, so generally employed for its removal.

* The evaporation of a spirit from the surface of the body, either of an infant or an adult, occasions such a degree of cold as to check insensible perspiration, and thereby bring on inflammation of the brain, lungs, bowels, or eyes. The practice, likewise, instead of hardening the skin, renders it more tender; it cannot, therefore, be too much deprecated.

† The most simple wash for children is a water in which some almond pow-

As the eruption is sometimes critical, it would not be advisable to employ an *external* application to repel it, but rather to prevent its sudden repulsion, by avoiding exposure to cold air, and by keeping the bowels gently open with magnesia and rhubarb: and should it suddenly disappear, and the child be evidently indisposed in consequence of it, the warm-bath and a gentle emetic of ipecacuan will be necessary, which, by producing a determination to the skin, generally succeed to reproduce it. If cough, or difficulty of breathing, or a violent affection of the bowels, intervene, medical advice should be immediately resorted to.

OF THE THRUSH. — This disease appears in white specks on the corner of the lips, the tongue, and back part of the palate, sometimes gradually spreading over the inside of the mouth, and throughout the intestinal canal. Infants brought up by the hand are most subject to this disorder, and to those it does not unfrequently prove fatal.

The cure of thrush greatly depends on a change of diet. The combination of vegetable and animal jellies, as directed under the head of Arrow-root, or the employment of veal-broth, or beef-tea, thickened with arrow-root or fine wheat-flour, is proper. A costive state of the bowels should be obviated by occasional doses of magnesia, with either calomel or rhubarb, and the parts affected may be touched with the following detergent liniment three or four times a day, by means of a large camel-hair pencil: — Take of Honey of Roses, one ounce; Muriatic Acid, ten drops; Liquid Laudanum, forty drops. — Mix.

Borax, well mixed with honey, in the proportion of one drachm of the former to an ounce of the latter, has been much recommended, and, on account of its consistency, will often answer better than a thin liniment.

In the advanced stage of thrush, when the system is much reduced, the child should be supported by a little Port wine and nourishing jellies. The observations made on the treatment of inward fits, page 548, apply to this disease.

In the treatment of thrush, it is necessary to attend to diet, to take care that the food be not given too warm; and to correct acidity in the stomach either by magnesia or lime-water, according to the state of the bowels. If the child be restless, the use of laudanum, as directed in cases of difficult dentition, will be necessary.

The other diseases of infants are noticed, in their alphabetical order, in the second part of this work.

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der has been rubbed between the hands; or fine almond powder may be used instead of soap. This will, in all cases, answer better than soap, the alcaline salt of which injures the skin, while the almond powder renders it healthy.

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